

City of Banks



**TRANSPORTATION SYSTEM
DEVELOPMENT CHARGE
Methodology Report**

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SECTION I: INTRODUCTION

This section describes the policy context and project scope upon which the body of this report is based.

A. SYSTEM DEVELOPMENT CHARGES

Oregon Revised Statutes (ORS) 223.297 to 223.314 authorize local governments to establish system development charges (SDCs). These are one-time fees on new development paid at the time of development. SDCs are intended to recover a fair share of the cost of existing and planned facilities that provide capacity to serve future growth.

ORS 223.299 defines two types of SDCs:

- ◆ A reimbursement fee that is designed to recover “costs associated with capital improvements already constructed, or under construction when the fee is established, for which the local government determines that capacity exists”
- ◆ An improvement fee that is designed to recover “costs associated with capital improvements to be constructed”

ORS 223.304(1) states, in part, that **a reimbursement fee must be based on “the value of unused capacity available to future system users or the cost of existing facilities”** and must account for prior contributions by existing users and any gifted or grant-funded facilities.

ORS 223.304(2) states, in part, that **an improvement fee must be calculated to include only the cost of projected capital improvements needed to increase system capacity for future users.** In other words, the cost of planned projects that correct existing deficiencies or do not otherwise increase capacity for future users may not be included in the improvement fee calculation. An improvement fee may be spent only on capital improvements (or portions thereof) that increase the capacity of the system for which it is being charged (whether cash-financed or debt-financed) and on the costs of compliance with Oregon’s SDC law.

The City of Banks has decided only to include an improvement fee in its transportation SDC at this time.

B. TRANSPORTATION SDC PROJECT

The City contracted with FCS GROUP to develop a methodology that is consistent with state laws for developing a local transportation SDC. We conducted the study using the following general approach:

- ◆ **Framework for Charges.** In this step, we worked with City staff to identify and agree on the approach to be used and the components to be included in the analysis.

- ◆ **Technical Analysis.** In this step, we worked with City staff to isolate the recoverable portion of facility costs and calculate SDC rates. We present the technical analysis in the appendices.
- ◆ **Methodology Report Preparation.** In this step, we documented the calculation of the SDC rates included in this report.

C. METHODOLOGY OVERVIEW

In general, SDCs are calculated by adding a reimbursement fee component (if applicable) and an improvement fee component—both with potential adjustments. Each component is calculated by dividing the eligible cost by growth in units of demand. The unit of demand becomes the basis of the charge. Below are details on the components and how they may be adjusted. **Exhibit 1.1** shows this calculation in equation format.

Exhibit 1.1 – SDC Equation						
Eligible costs of available capacity in existing facilities	+	Eligible costs of capacity-increasing capital improvements	+	Costs of complying with Oregon SDC law	=	SDC per unit of growth in demand
Units of growth in demand (trips)						

C.1 Improvement Fee

The improvement fee is the cost of capacity-increasing capital projects per unit of growth that those projects will serve. The unit of growth becomes the basis of the fee. In reality, the capacity added by many projects serves a dual purpose of both meeting existing demand and serving future growth. To compute a compliant SDC rate, growth-related costs must be isolated, and costs related to current demand must be excluded.

We have used the capacity approach to allocate costs to the improvement fee basis.¹ Under this approach, the cost of a planned transportation capital project is allocated to growth by the portion of total project capacity that represents capacity for future users. That portion, referred to as the improvement fee eligibility percentage, is multiplied by the total project cost to determine that project’s improvement fee cost basis.

C.2 Adjustments

Two cost basis adjustments are applicable to the SDC calculation. The first adjustment is to add SDC compliance costs. The second adjustment is to deduct current fund balances from the SDC cost basis.

C.2.a Compliance Costs

ORS 223.307(5) authorizes the expenditure of SDCs on “the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures.” To avoid spending monies for compliance that might otherwise have been spent on projects, this report includes an estimate of compliance costs in its SDCs.

¹ Two alternatives to the capacity approach include the “incremental approach” and the “causation approach.” The incremental approach requires the computation of hypothetical project costs to serve existing users. Only the incremental cost of the actual project is included in the improvement fee cost basis. The causation approach, which allocates 100 percent of all growth-related projects to growth, may be vulnerable to legal challenge.

C.2.b Fund Balance

To the extent that SDC revenue is currently available in a fund balance, that revenue must be deducted from its corresponding cost basis. This prevents a jurisdiction from over-charging for projects that will be constructed with fund balance monies that are included in the project list. The City does not have a transportation SDC currently and has no SDC fund balances to deduct. However, future development is subject to the Washington County Transportation Development Tax (TDT) and many of the planned capital improvements are potentially eligible for TDT funding (formerly named the Washington County Transportation Impact Fee). As such, this SDC methodology deducts existing TDT/TIF fund balances from the eligible SDC cost basis.

SECTION II: SDC CALCULATIONS

This section provides the rationale and calculations for proposed transportation SDCs. As discussed above, the Banks transportation SDC includes two components: an improvement fee and compliance cost recovery fee. Below we provide detailed calculations for each component of the fee.

A. GROWTH CALCULATION

The growth calculation is the basis by which an SDC is charged, measured in units that most directly reflect the source of demand. For transportation SDCs, the most applicable and administratively feasible unit of growth is trips.

Transportation engineers commonly use peak-hour trip-ends or average daily person trip-ends to assess transportation performance and determine system needs. P.M. peak hour trip-ends (PMPHTs) are the number of vehicle trips during the peak hour of traffic which typically occurs between 4 and 6 p.m. Average daily person trip-ends (ADPTs) are the number of average trips made by people in vehicles in addition to non-motor vehicle trips that utilize bicycle, pedestrian, and transit facilities.

This methodology includes rate calculations using either ADPTs or PMPHTs to appropriately account for a balanced transportation system with a mix of motor vehicle, bicycle, transit, and pedestrian facility improvements that address planned growth in a manner that is consistent with the adopted transportation infrastructure plans. This PMPHT methodology is provided for administrative ease when calculating the TSDC.

Exhibit 2.1 shows the projected growth in both trip types between 2015 and the end of the planning period, 2035. The growth in trip estimates is derived from the adopted Banks Transportation System Plan (TSP) with City of Banks staff input. Current trip estimates were derived using Metro Regional Transportation Plan travel demand modeling data, interpolated to year 2015, using 2010 to 2015 local building permit data (please see **Appendices A, B, and C** for additional information). The Banks TSP trip growth forecast reflect trips that originate or terminate in the Banks urban growth area and excludes regional trips that pass through this area.

Exhibit 2.1: Banks Transportation Customer Base				
	2015 est.	2035 proj.	Growth	Growth as a % of Future Customers
P.M. Peak Hour Trips				
Residential Trips	518	1,561	1,043	66.83%
Non-Residential Trips	325	2,409	2,084	86.49%
Total	843	3,970	3,127	78.76%
Average Daily Person Trips				
Residential Trips	5,638	16,997	11,358	66.83%
Non-Residential Trips	3,545	26,239	22,695	86.49%
Total	9,183	43,236	34,053	78.76%

Source: Derived from the Banks Transportation System Plan assumptions and Appendices A, B, and C; compiled by FCS GROUP.

B. IMPROVEMENT FEE COST BASIS SCENARIOS

The improvement fee cost basis is based on a specific list of planned capacity-increasing capital improvements identified through locally adopted plans. The portion of each project that can be included in the improvement fee cost basis is determined based on the extent to which the project creates new capacity for future users.

Exhibit 2.2 shows the total improvement fee cost basis for three different Banks transportation SDC scenarios. The eligible portion shown in the exhibit is a weighted average of the eligibility of all projects. See **Appendix D** for a complete list of the projects and the capacity-related eligible portions as well as the delineation of project lists.

- ◆ **Scenario A** represents a list of 31 transportation projects that have been identified or adopted as part of recent City plans, including the Banks TSP, Banks Bicycle/Pedestrian Master Plan, and various refinement plans. This scenario generally does not include Washington County or State of Oregon transportation facilities, but instead focuses primarily upon locally owned road, bike, and pedestrian facilities.
- ◆ **Scenario B** represents 37 transportation projects including most County and State facilities along with the local facilities identified as part of Scenario A. This scenario differs from Scenario C in that it assumes a lower City Cost share or different cost estimates for certain major improvements.
- ◆ **Scenario C** includes the full cost of all 47 transportation projects identified in recent local transportation plans.

Exhibit 2.2: Transportation Capital Projects Summary: 2015 to 2035			
	2016 Cost Estimate	SDC/TDT-Eligible %	SDC/TDT-Eligible Costs
Scenario A	\$32,310,737	99.60%	\$32,180,150
Scenario B	\$46,397,612	98.56%	\$45,727,222
Scenario C	\$52,942,115	98.25%	\$52,017,182

Source: Appendix D, compiled by FCS GROUP.

B.1 TDT Adjustments

The City of Banks is located in Washington County, meaning it collects the Transportation Development Tax (TDT). The TDT is a County-wide charge that functions similar to the SDC. SDC

and TDT revenue can only be used on capacity-related capital improvements that address growth. Therefore, the combined total TDT and SDC funding may not exceed the total cost of eligible capacity improvements. To avoid over-charging for any project that can potentially be funded using TDT revenue, the projected TDT revenue is deducted from the SDC/TDT eligible cost basis. Additionally, as noted above, the City’s existing TDT fund balances are also deducted from the improvement fee cost basis. These adjustments are shown in **Exhibit 2.3**.

Exhibit 2.3: Transportation Development Tax (TDT) Cost Adjustments		
	Cost Adjustments	Source Notes
Estimated TDT Revenue		
1. Single Family Detached Charge per Dwelling Unit (TDT charge per peak hour trip)	\$8,113	Washington County TDT Rates
2. PMPHTs per Single Family Detached Dwelling	1.02	ITE 9th Edition
3. Charge per PMPHT (1 ÷ 2)	\$7,954	
4. Total Projected PMPHTs	3,127	Appendix C
5. Total Projected TDT Revenue (3 x 4)	\$24,871,913	
Fund Balance Adjustment		
TDT Fund Balance	\$436,141	

Compiled by FCS GROUP.

Abbreviations: PMPHTs - P.M. Peak Hour Trips.

While the City of Banks currently does not have any projects listed on the TDT Capital Improvement Program, the City could expend future TDT funds on roadway collector or arterial projects if such projects are eligible for TDT funding and adopted into an amended TDT program list.

C. COMPLIANCE COST BASIS

ORS 223.307(5) authorizes the expenditure of SDCs on “the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures.” The estimated transportation SDC compliance costs for each scenario are listed in **Exhibit 2.4**.

Exhibit 2.4: Transportation SDC Compliance Costs: 2015 to 2035			
	Scenario A	Scenario B	Scenario C
Transportation SDC Update	\$30,000	\$30,000	\$30,000
Transportation System Plan Update	\$100,000	\$100,000	\$100,000
Administrative Costs¹	\$1,287,206	\$1,829,089	\$2,080,687
Total Compliance Costs	\$1,417,206	\$1,959,089	\$2,210,687

Source: City of Banks; compiled by FCS GROUP.

¹Administrative costs are 4 percent of TDT/SDC eligible costs.

SECTION III: FINDINGS AND RECOMMENDATIONS

A. BANKS TRANSPORTATION SDC SCENARIOS

Dividing the SDC eligible costs described above by the projected growth in trips produces the proposed transportation SDC. **Exhibits 3.1, 3.2, and 3.3** summarize the components of the SDC and provide equivalent calculations using both the person trip and the vehicle trip methods for each scenario.

As indicated in **Exhibit 3.1**, Scenario A is based on a \$32,180,150 in capacity costs of transportation projects less TDT fund balances and future projected TDT revenue, leaving \$6,872,096 in net SDC eligible costs. This net improvement fee cost basis is divided by either person trips or PMPHT to arrive at the SDC improvement fee of \$202 per ADPT or the equivalent of \$2,198 per PMPHT. The projected \$1,417,206 in compliance costs results in an additional \$42 per ADPT or \$453 per PMPHT. The total improvement fee and compliance fee equates to \$243 per ADPT or \$2,651 per PMPHT.

Exhibit 3.1: Scenario A - Reduced Project List				
Improvement Charge	Person Trip Calculation		P.M. Peak Trip Calculation	
Capacity Expanding CIP	\$32,180,150		\$32,180,150	
Less: TDT Fund Balance	(\$436,141)		(\$436,141)	
Less: TDT Revenue	(\$24,871,913)		(\$24,871,913)	
Net Improvement Fee Eligibility	\$6,872,096		\$6,872,096	
Trip Growth	34,053	Person Trip	3,127	P.M. Peak Trip
Improvement Charge	\$202	per Person Trip	\$2,198	per P.M. Peak Trip
Compliance Charge				
Costs of Compliance	\$1,417,206		\$1,417,206	
Trip Growth	34,053	Person Trip	3,127	P.M. Peak Trip
Compliance Charge	\$42	per Person Trip	\$453	per P.M. Peak Trip
Total System Development Charge				
Improvement Charge	\$202	per Person Trip	\$2,198	per P.M. Peak Trip
Compliance Charge	\$42	per Person Trip	\$453	per P.M. Peak Trip
Total SDC	\$243	per Person Trip	\$2,651	per P.M. Peak Trip

Source: Previous tables, compiled by FCS GROUP.

As indicated in **Exhibit 3.2**, Scenario B is based on a \$45,727,222 in capacity costs of transportation projects less TDT fund balances and future projected TDT revenue, leaving \$20,419,168 in net SDC eligible costs. This net improvement fee cost basis is divided by either ADPT or PMPHT to arrive at the SDC improvement fee of \$600 per ADPT or the equivalent of \$6,630 per PMPHT. The projected

\$1,959,089 in compliance costs results in an additional \$58 per ADPT or \$627 per PMPHT. The total improvement fee and compliance fee equates to \$657 per ADPT or \$7,156 per PMPHT.

Exhibit 3.2: Scenario B - Modified Project List				
Improvement Charge		Person Trip Calculation		P.M. Peak Trip Calculation
Capacity Expanding CIP	\$45,727,222			\$45,727,222
Less: TDT Fund Balance	(\$436,141)			(\$436,141)
Less: TDT Revenue	<u>(\$24,871,913)</u>			<u>(\$24,871,913)</u>
Net Improvement Fee Eligibility	\$20,419,168			\$20,419,168
Trip Growth	34,053	Person Trip		3,127 P.M. Peak Trip
Improvement Charge	\$600	per Person Trip		\$6,530 per P.M. Peak Trip
Compliance Charge				
Costs of Compliance	\$1,959,089			\$1,959,089
Trip Growth	34,053	Person Trip		3,127 P.M. Peak Trip
Compliance Charge	\$58	per Person Trip		\$627 per P.M. Peak Trip
Total System Development Charge				
Improvement Charge	\$600	per Person Trip		\$6,530 per P.M. Peak Trip
Compliance Charge	<u>\$58</u>	per Person Trip		<u>\$627</u> per P.M. Peak Trip
Total SDC	\$657	per Person Trip		\$7,156 per P.M. Peak Trip

Source: Previous tables, compiled by FCS GROUP.

As indicated in **Exhibit 3.3**, Scenario C is based on a \$52,017,182 in capacity costs of transportation projects less TDT fund balances and future projected TDT revenue, leaving \$26,709,128 in net SDC eligible costs. This net improvement fee cost basis is divided by either ADPT or PMPHT to arrive at the SDC improvement fee of \$784 per person trip or the equivalent of \$8,541 per PMPHT. The projected \$2,210,687 in compliance costs results in an additional \$65 per ADPT or \$707 per PMPHT. The total improvement fee and compliance fee equates to \$849 per ADPT or \$9,248 per PMPHT.

Exhibit 3.3: Scenario C - Full Project List				
Improvement Charge	Person Trip Calculation		P.M. Peak Trip Calculation	
Capacity Expanding CIP	\$52,017,182		\$52,017,182	
Less: TDT Fund Balance	(\$436,141)		(\$436,141)	
Less: TDT Revenue	<u>(\$24,871,913)</u>		<u>(\$24,871,913)</u>	
Net Improvement Fee Eligibility	\$26,709,128		\$26,709,128	
Trip Growth	34,053	Person Trip	3,127	P.M. Peak Trip
Improvement Charge	\$784	per Person Trip	\$8,541	per P.M. Peak Trip
Compliance Charge				
Costs of Compliance	\$2,210,687		\$2,210,687	
Trip Growth	34,053	Person Trip	3,127	P.M. Peak Trip
Compliance Charge	\$65	per Person Trip	\$707	per P.M. Peak Trip
Total System Development Charge				
Improvement Charge	\$784	per Person Trip	\$8,541	per P.M. Peak Trip
Compliance Charge	<u>\$65</u>	per Person Trip	<u>\$707</u>	per P.M. Peak Trip
Total SDC	\$849	per Person Trip	\$9,248	per P.M. Peak Trip

Source: Previous tables, compiled by FCS GROUP.

B. CREDITS, EXEMPTIONS, AND DISCOUNTS

The City of Banks may establish local policies for issuing credits, exemptions and discounts along with other SDC administrative procedures. If the City provides policies that result in additional credits beyond what is required to address state law, SDC exemptions or discounts, the amount of future SDC revenues will be lower than what is forecasted in this methodology report.

If such local policies are to be considered, it is recommended that the City consider other funding techniques in addition to SDCs to ensure adequate funding is provided to meet planned system improvement needs. Potential additional sources of funding that could off-set a reduction in SDCs may include state or regional grants, voter-approved bond measures, local improvement districts, reimbursement districts, and development agreements.

B.1 SDC Credit Policy

An SDC credit is a reduction in the amount of an SDC incurred by a new development. Oregon Revised Statutes (ORS) 223.304 includes minimum requirements for providing credits against the improvement fee of an SDC. This statute requires that credit be allowed for the construction of a “qualified public improvement” which (1) is required as a condition of development approval, (2) is identified in the City’s capital improvements program, and (3) either is “not located on or contiguous to property that is the subject of development approval”, or is located on or contiguous to such property and is “required to be built larger or with greater capacity than is necessary for the particular development project.”

SDC credit must be granted for the cost of that portion of an improvement which exceeds the capacity needed to serve the particular project. For multi-phase projects, any excess credit may be applied against SDCs that accrue in subsequent phases of the development project. The law specifies that credits must be used within ten years of issuance. In addition to the required credits, the City may provide additional credits above the legal minimum.

B.2 TDT Credit Policy

The City has chosen to adopt a modified version of the Washington County TDT credit policy when providing SDC credits. This means that the City will provide credits at a level greater than the minimum state requirement. Please refer to **Exhibits 3.4** for guidelines used to determine SDC credit values. **Exhibit 3.4** provides guidance on credit eligibility based on several criteria. Only projects that have been identified as qualified public improvements per ORS 223.309 and included on the adopted transportation project list (**Appendix D, Scenario B**) will be eligible for SDC credits. However, the transportation project list (**Appendix D, Scenario B**) may be modified at any time per council resolution in accordance with ORS 223.302.

Exhibit 3.4: Guidance on Determination of Transportation SDC Credits**

Road Classification	Is the project...		Credit % of Project Costs (Eligible Components Only)	Credit Eligible (at applicable credit %)	
	Contiguous to development seeking land use approval	On the project list?		Local Street Standard	Right of Way
Collector	No	No	0%	No	No
Collector	Yes	No	0%	No	No
Collector	No	Yes	100%	Yes	Yes
Collector	Yes	Yes	100%	No	Yes*
Arterial	No	No	0%	No	No
Arterial	Yes	No	0%	No	No
Arterial	No	Yes	100%	Yes	Yes
Arterial	Yes	Yes	100%	No	Yes*

Source: Adapted from Washington County TDT Procedures Manual.

*Right of way credit applies only to the portion above local standard.

**Creditable project design costs are limited to no more than 13.5% of total project costs.

B.3 Exemptions

The City may exempt specific classes of development such as minor additions from the requirement to pay transportation SDCs.

C. INDEXING

Each year, the City may consider amending its SDC to take into account the cost of inflation. Oregon law (ORS 223.304) also allows for the periodic indexing of SDCs for inflation, based on:

“(A) A relevant measurement of the average change in prices or costs over an identified time period for materials, labor, real property or a combination of the three;

(B) Published by a recognized organization or agency that produces the index or data source for reasons that are independent of the system development charge methodology; and

(C) Incorporated as part of the established methodology or identified and adopted in a separate ordinance, resolution or order.”

We recommend that the City index its charges to the Engineering News Record 20-City Average Construction Cost Index, and adjust the charges annually. There is no comparable Oregon-specific index.

D. FEE BASIS

The transportation SDC is based on the number of person trips or vehicle trips that a land use generates. As noted in **Section II**, we recommend the City charge the TSDC on the basis of PMPHTs. The Institute of Transportation Engineers (ITE) *Trip Generation Manual* contains trip rates based on studies conducted nationwide and provides the base data of unadjusted counts of trips generated by various types of land use. The trip rates include all traffic entering or leaving a location but does not account for traffic that passes by or interrupts a primary trip between origin and destination. We have taken the step of removing pass-by trips and diverted/linked trips because they would occur regardless of development activity.

We calculate the number of new PMPHTs generated per day for each type of land use with the following formula:

$$ITE\ PMPHT\ Trip\ Rate \times (1 - \% \text{ Pass-by and Diverted/Linked Trips}) = New\ PMPHT$$

Appendix E shows the trips per land use for the transportation SDC. It is important to note that the *Trip Generation Manual* may not contain some land use categories or may not include trip rates or number of net new trips generated. For such land use categories without data, the City SDC Administrator shall use her/his judgment to calculate the transportation SDC.

The SDC per unit of development is then calculated for each type of land use by multiplying the new PMPHT for each land use by the SDC per PMPHT. The SDC fee is dependent on the scenario adopted by the City.

$$SDC\ per\ PMPHT \times New\ PMPHT\ by\ Land\ Use = SDC\ by\ Land\ Use$$

E. TRANSPORTATION SDC RECOMMENDATIONS

It is recommended that the City of Banks adopt the transportation SDC Scenario B as identified and described in this report. This would result in a transportation SDC that is summarized below in **Exhibit 3.6**. This would result in a local transportation SDC for new development as follows:

Exhibit 3.6: Transportation SDC by Land Use						
ITE Code	Scenario A		Scenario B (recommended)		Scenario C	
Single Family Detached Home (ITE 210)	\$2,704/DU		\$7,300/DU		\$9,433/DU	
Apartment (ITE 210)	\$1,776/DU		\$4,795/DU		\$6,196/DU	
Townhouse (ITE 210)	\$1,378/DU		\$3,721/DU		\$4,809/DU	
Other Developments	\$243/ ADPT	\$2,651/ PMPHT	\$657/ ADPT	\$7,156/ PMPHT	\$849/ ADPT	\$9,248/ PMPHT

Source: based on prior tables and Appendix F, compiled by FCS GROUP.

Please refer to **Appendix F** for a detailed summary of SDCs by land use type.

APPENDIX

Appendix A: Household and Employment Estimates

Household and Employment Estimates		
	2010	2015
Total Households	545	547
Total Employment	480	480
<i>Retail</i>	103	103
<i>Service</i>	26	26
<i>Other</i>	351	351

Source: Metro 2010 estimates for Banks Traffic Analysis Zone
#1440 Metroscope Gamma 2035 Forecast 2015, estimates by
City staff; compiled by FCS GROUP.

Appendix B: Trip Estimates by Land Use

Trip Estimates by Land Use Type			
Land Use Categories	ITE Land Use Code	PMPHTs per Unit	ADPTs per unit ²
Single Family Dwellings	210	1.02	11.11
Multifamily Dwellings	220	0.67	7.30
Average per Dwelling ¹		0.95	10.35
Retail Employment	815	1.68	18.30
Service Employment	710	0.46	5.01
Other Employment	140	0.40	4.36

Source: ITE Handbook 9th Edition, and DKS Associates; compiled by FCS GROUP.

¹Presumed household mix of 80% single family detached and 20% multifamily housing. Person trips per unit reflect mix.

²Person trips calculated with 10.89 person trips equal to one PM peak hour trip provided by DKS based on Metro RTP Gamma Model

Abbreviations: PMPHTs - P.M. Peak Hour Trips. ADPTs - Average Daily Person Trips.

Appendix C: Trip Growth Forecast, 2015 to 2035

Trip Growth Forecast, 2015 to 2035				
Banks Urban Growth Area Development Zones	PMPHT Growth - Residential	PMPHT Growth - Non-Residential	Total PMPHT Growth	Total ADPT Growth ¹
Northwest	160	195	355	3,866
Northeast	535	56	591	6,436
Southwest	111	946	1,057	11,511
Southeast	237	887	1,124	12,240
Total	1,043	2,084	3,127	34,053

Source: Banks TSP Appendix B; compiled by FCS GROUP.

¹Person trips calculated with 10.89 person trips equal to one PM peak hour trip provided by DKS based on Metro RTP Gamma Model

Appendix D: Transportation Capital Project List

Transportation Capital Projects: 2015 to 2035						Project Included in:		
Project Number	Description	2016 Cost Estimate	SDC/TDT-Eligible %	SDC/TDT-Eligible Costs	Source	Scenario A	Scenario B	Scenario C
TSP 1	Realign Wilkesboro Rd.	\$1,057,236	78.76%	\$832,691	2010 Transportation System Plan	No	Yes	Yes
TSP 2	Realign Washington Ave.	\$1,484,340	78.76%	\$1,169,083	2010 Transportation System Plan	No	Yes	Yes
TSP 3b	Construct Overcrossing of Railroad from Sunset Ave. to Eastside	\$10,708,543	100.00%	\$10,708,543	2010 Transportation System Plan	No	No	Yes
TSP 3b**	Construct At-grade of Railroad	\$4,500,000	100.00%	\$4,500,000	Refinement Plan by PB, 2015	Yes	Yes	No
TSP 4	Install Advanced Warning Signage on Banks Road	\$17,332	100.00%	\$17,332	2010 Transportation System Plan	No	Yes	Yes
TSP 5	Reconstruct Banks Rd.	\$10,193,542	100.00%	\$10,193,542	2010 Transportation System Plan	No	Yes	Yes
TSP 6a	Extend SB Left Turn Lane on Main St.	\$11,142	100.00%	\$11,142	2010 Transportation System Plan	Yes	Yes	Yes
TSP 6b	Extend EB Left Turn Lane on OR 6 Ramp Terminal	\$11,142	100.00%	\$11,142	2010 Transportation System Plan	Yes	Yes	Yes
TSP 8	Construct Westside Circulator Road	\$15,688,943	100.00%	\$15,688,943	2010 Transportation System Plan	Yes	Yes	Yes
TSP 9	Construct Wilkes Road Extension	\$574,424	100.00%	\$574,424	2010 Transportation System Plan	No	Yes	Yes
TSP 10	Construct Eastside Circulator Road	\$5,497,877	100.00%	\$5,497,877	2010 Transportation System Plan	Yes	Yes	Yes
TSP 11	Construct Bicycle/Pedestrian RR crossing	\$760,000	100.00%	\$760,000	2010 Transportation System Plan*	No	Yes	Yes
BPP 1	Main Street Sidewalk Infill	\$51,686	100.00%	\$51,686	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 2	Main Street Bicycle Lanes	\$15,506	78.76%	\$12,213	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 3	Sidewalk and Curb at Five Star Complex	\$31,012	78.76%	\$24,425	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 4	NW Banks Road/Main Street Crosswalk	\$5,169	78.76%	\$4,071	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 5	Enhanced NW Banks Road Trailhead Crossing	\$36,180	78.76%	\$28,496	2015 Bicycle and Ped Plan	Yes	Yes	Yes

Transportation Capital Projects: 2015 to 2035					Project Included in:			
Project Number	Description	2016 Cost Estimate	SDC/TDT-Eligible %	SDC/TDT-Eligible Costs	Source	Scenario A	Scenario B	Scenario C
BPP 6	Parking Management Study	\$77,529	0.00%	\$0	2015 Bicycle and Ped Plan	No	No	Yes
BPP 7	UGB Expansion Area	\$77,529	0.00%	\$0	2015 Bicycle and Ped Plan	No	No	Yes
BPP 8	Railroad Trail	\$852,824	100.00%	\$852,824	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 9	West Side Multi-Use Connection	\$620,236	100.00%	\$620,236	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 10	School Circulation Study	\$77,529	0.00%	\$0	2015 Bicycle and Ped Plan	No	No	Yes
BPP 11	Main Street Crosswalk at Banks High School	TBD	78.76%	\$0	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 12	NW Oak Way Bicycle Lane	\$3,101	78.76%	\$2,443	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 13	Way-Finding Signs	\$12,405	78.76%	\$9,770	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 14	Main Street Crosswalk at Sunset Avenue	\$56,855	78.76%	\$44,780	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 15	Main Street Crosswalk at NW Trellis Way	\$56,855	78.76%	\$44,780	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 16	Dynamic Radar-Activated Speed Limit Signs	\$62,024	78.76%	\$48,850	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 17	Bicycle Parking Along Main Street	\$3,360	78.76%	\$2,646	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 18	Pedestrian/Bicycle Access between Wilkes St and the Schools	\$20,675	78.76%	\$16,283	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 19	School Bicycle Parking	\$2,067	78.76%	\$1,628	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 20	Sight Distance and Lighting on NW Oak Way	\$14,472	78.76%	\$11,398	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 21	Pedestrian-Scale Lighting on Main Street	\$170,565	78.76%	\$134,339	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 22	Pedestrian Amenities on Main Street	\$17,573	78.76%	\$13,841	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 23	NW Banks Road Multimodal Improvements	\$3,514,669	100.00%	\$3,514,669	2015 Bicycle and Ped Plan	Yes	Yes	Yes

Transportation Capital Projects: 2015 to 2035						Project Included in:		
Project Number	Description	2016 Cost Estimate	SDC/TDT-Eligible %	SDC/TDT-Eligible Costs	Source	Scenario A	Scenario B	Scenario C
BPP 24	NW Banks Road and NW Aerts Road Warning Signage	\$5,169	0.00%	\$0	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 25	Resurface Commerce Street	\$103,373	78.76%	\$81,417	2015 Bicycle and Ped Plan	No	No	Yes
BPP 27	Commerce Street Sidewalk Infill	\$82,698	78.76%	\$65,134	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 28	Arbor Village Access Improvements	\$20,675	100.00%	\$20,675	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 29	Trail to Highway 6	\$93,035	100.00%	\$93,035	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 30	Separated Trail on Main Street	\$387,647	100.00%	\$387,647	2015 Bicycle and Ped Plan	Yes	Yes	Yes
BPP 31	Highway 6 Multi-Use Path	\$465,177	100.00%	\$465,177	2015 Bicycle and Ped Plan	Yes	Yes	Yes

Source: City of Banks, compiled by FCS GROUP.

Costs escalated to 2015 using the Engineer News Record, Seattle Construction Cost Index.

*Refined cost estimates by City staff, December 2015.

**Alternative to the TSP project 3b.

Appendix E: Trips by Land Use

Trips by Land Use			Weekday PM Peak-Hour Trips	Primary Trip Adjustments as a Percent of Total ¹	Adjusted PM Peak Trips	Number of Person Trips ²
ITE Code	Land Use	Unit				
110	General Light Industrial	1,000 SFGFA	1.08	100%	1.08	11.76
130	Industrial Park	1,000 SFGFA	0.84	100%	0.84	9.15
140	Manufacturing	1,000 SFGFA	0.75	100%	0.75	8.17
151	Mini-Warehouse	1,000 SFGFA	0.29	100%	0.29	3.16
160	Data Center	1,000 SFGFA	0.14	100%	0.14	1.52
210	Single-Family Detached Housing	Dwelling unit	1.02	100%	1.02	11.11
220	Apartment	Dwelling unit	0.67	100%	0.67	7.30
230	Residential Condominium/Townhouse	Dwelling unit	0.52	100%	0.52	5.66
240	Mobile Home Park	ODU	0.60	100%	0.60	6.53
254	Assisted Living	Bed	0.35	100%	0.35	3.81
310	Hotel	Room	0.61	100%	0.61	6.64
320	Motel	Room	0.56	100%	0.56	6.10
417	Regional Park	Acre	0.26	100%	0.26	2.83
430	Golf Course	Acre	0.39	100%	0.39	4.25
492	Health/Fitness Club	1,000 SFGFA	4.06	100%	4.06	44.21
495	Recreational Community Center	1,000 SFGFA	3.35	100%	3.35	36.48
520	Elementary School	1,000 SFGFA	3.11	59%	1.83	19.98
522	Middle School/Junior High School	1,000 SFGFA	2.52	59%	1.49	16.19
530	High School	1,000 SFGFA	2.12	59%	1.25	13.62
540	Junior/Community College	1,000 SFGFA	2.64	100%	2.64	28.75
560	Church	1,000 SFGFA	0.94	100%	0.94	10.24
565	Day Care Center	1,000 SFGFA	13.75	33%	4.54	49.41
590	Library	1,000 SFGFA	7.20	100%	7.20	78.41
610	Hospital	1,000 SFGFA	1.16	100%	1.16	12.63
620	Nursing Home	1,000 SFGFA	1.01	100%	1.01	11.00
710	General Office Building	1,000 SFGFA	1.49	100%	1.49	16.23
720	Medical-Dental Office Building	1,000 SFGFA	4.27	100%	4.27	46.50
731	State Motor Vehicles Department	1,000 SFGFA	19.93	100%	19.93	217.04
732	United States Post Office	1,000 SFGFA	14.67	100%	14.67	159.76
750	Office Park	1,000 SFGFA	1.48	100%	1.48	16.12
760	Research and Development Center	1,000 SFGFA	1.07	100%	1.07	11.65

Trips by Land Use					Weekday PM Peak-Hour Trips	Primary Trip Adjustments as a Percent of Total¹	Adjusted PM Peak Trips	Number of Person Trips²
ITE Code	Land Use	Unit						
770	Business Park	1,000 SFGFA		1.26	100%	1.26	13.72	
812	Building Materials and Lumber Store	1,000 SFGFA		5.56	100%	5.56	60.55	
813	Free-Standing Discount Superstore	1,000 SFGFA		4.40	72%	3.17	34.50	
814	Variety Store	1,000 SFGFA		6.99	48%	3.34	36.35	
815	Free-Standing Discount Store	1,000 SFGFA		5.57	48%	2.66	28.96	
816	Hardware/Paint Store	1,000 SFGFA		4.74	45%	2.11	22.97	
817	Nursery (Garden Center)	1,000 SFGFA		9.04	100%	9.04	98.45	
820	Shopping Center	1,000 SFGFA		3.71	50%	1.86	20.26	
826	Specialty Retail Center	1,000 SFGFA		5.02	100%	5.02	54.67	
841	Automobile Sales	1,000 SFGFA		2.80	100%	2.80	30.49	
843	Automobile Parts Sales	1,000 SFGFA		6.44	44%	2.83	30.86	
848	Tire Store	1,000 SFGFA		3.26	69%	2.24	24.38	
850	Supermarket	1,000 SFGFA		8.37	39%	3.24	35.32	
851	Convenience Market (Open 24 Hours)	1,000 SFGFA		53.42	33%	17.38	189.22	
857	Discount Club	1,000 SFGFA		4.63	100%	4.63	50.42	
862	Home Improvement Superstore	1,000 SFGFA		3.17	44%	1.39	15.19	
880	Pharmacy/Drugstore without Drive-Through	1,000 SFGFA		11.07	42%	4.69	51.03	
881	Pharmacy/Drugstore with Drive-Through	1,000 SFGFA		9.72	38%	3.69	40.22	
890	Furniture Store	1,000 SFGFA		0.53	37%	0.19	2.12	
911	Walk-in Bank	1,000 SFGFA		12.13	100%	12.13	132.10	
912	Drive-in Bank	1,000 SFGFA		26.69	27%	7.30	79.45	
925	Drinking Place	1,000 SFGFA		15.49	100%	15.49	168.69	
931	Quality Restaurant	1,000 SFGFA		9.02	43%	3.83	41.75	
932	High-Turnover (Sit-Down) Restaurant	1,000 SFGFA		18.49	40%	7.35	80.04	
933	Fast-Food Restaurant without Drive-Through	1,000 SFGFA		52.40	40%	20.83	226.83	
934	Fast-Food Restaurant with Drive-Through	1,000 SFGFA		47.30	41%	19.37	210.90	
936	Coffee/Donut Shop without Drive-Through	1,000 SFGFA		25.81	40%	10.26	111.73	
937	Coffee/Donut Shop with Drive-Through	1,000 SFGFA		36.16	41%	14.81	161.23	
938	Coffee/Donut Kiosk	1,000 SFGFA		96.00	17%	16.32	177.72	
944	Gasoline/Service Station	VFP		15.65	35%	5.48	59.65	
945	Gasoline/Service Station with Convenience Market	VFP		13.57	13%	1.73	18.88	
946	Gasoline/Service Station with Car Wash	VFP		14.52	24%	3.47	37.77	

Source: ITE Trip Generation Manual, 9th Edition, compiled by FCS GROUP

Trips by Land Use						
ITE Code	Land Use	Unit	Weekday PM Peak-Hour Trips	Primary Trip Adjustments as a Percent of Total¹	Adjusted PM Peak Trips	Number of Person Trips²

¹Primary trip adjustments include pass by trips and diverted/linked trips.

²Person trips calculated with 10.89 person trips equal to one PM peak hour trip provided by DKS based on Metro RTP Gamma Model

Abbreviations

CFD - commercial flights per day

ODU - occupied dwelling unit

SFGFA - square feet of gross floor area

SFGLA - square feet of gross leasable area

VFP - vehicle fueling position

Appendix F: SDC Fee by Scenario by Land Use

Transportation SDC by Land Use			Scenario A			Scenario B (recommended)			Scenario C		
ITE #	Land Use	Unit	Imp. Fee	Comp. Fee	Total	Imp. Fee	Comp. Fee	Total	Imp. Fee	Comp. Fee	Total
110	General Light Industrial	1,000 SFGFA	\$2,373	\$489	\$2,863	\$7,052	\$677	\$7,729	\$9,225	\$764	\$9,988
130	Industrial Park	1,000 SFGFA	\$1,846	\$381	\$2,227	\$5,485	\$526	\$6,011	\$7,175	\$594	\$7,769
140	Manufacturing	1,000 SFGFA	\$1,648	\$340	\$1,988	\$4,897	\$470	\$5,367	\$6,406	\$530	\$6,936
151	Mini-Warehouse	1,000 SFGFA	\$637	\$131	\$769	\$1,894	\$182	\$2,075	\$2,477	\$205	\$2,682
160	Data Center	1,000 SFGFA	\$308	\$63	\$371	\$914	\$88	\$1,002	\$1,196	\$99	\$1,295
210	Single-Family Detached Housing	Dwelling unit	\$2,242	\$462	\$2,704	\$6,661	\$639	\$7,300	\$8,712	\$721	\$9,433
220	Apartment	Dwelling unit	\$1,472	\$304	\$1,776	\$4,375	\$420	\$4,795	\$5,723	\$474	\$6,196
230	Residential Condominium/Townhouse	Dwelling unit	\$1,143	\$236	\$1,378	\$3,396	\$326	\$3,721	\$4,442	\$368	\$4,809
240	Mobile Home Park	ODU	\$1,319	\$272	\$1,591	\$3,918	\$376	\$4,294	\$5,125	\$424	\$5,549
254	Assisted Living	Bed	\$769	\$159	\$928	\$2,285	\$219	\$2,505	\$2,990	\$247	\$3,237
310	Hotel	Room	\$1,341	\$276	\$1,617	\$3,983	\$382	\$4,365	\$5,210	\$431	\$5,642
320	Motel	Room	\$1,231	\$254	\$1,484	\$3,657	\$351	\$4,008	\$4,783	\$396	\$5,179
417	Regional Park	Acre	\$571	\$118	\$689	\$1,698	\$163	\$1,861	\$2,221	\$184	\$2,405
430	Golf Course	Acre	\$857	\$177	\$1,034	\$2,547	\$244	\$2,791	\$3,331	\$276	\$3,607
492	Health/Fitness Club	1,000 SFGFA	\$8,923	\$1,840	\$10,763	\$26,512	\$2,544	\$29,055	\$34,678	\$2,870	\$37,549
495	Recreational Community Center	1,000 SFGFA	\$7,362	\$1,518	\$8,880	\$21,875	\$2,099	\$23,974	\$28,614	\$2,368	\$30,982
520	Elementary School	1,000 SFGFA	\$4,032	\$832	\$4,864	\$11,982	\$1,150	\$13,131	\$15,673	\$1,297	\$16,970
522	Middle School/Junior High School	1,000 SFGFA	\$3,267	\$674	\$3,941	\$9,709	\$931	\$10,640	\$12,699	\$1,051	\$13,751
530	High School	1,000 SFGFA	\$2,749	\$567	\$3,316	\$8,168	\$784	\$8,951	\$10,684	\$884	\$11,568
540	Junior/Community College	1,000 SFGFA	\$5,802	\$1,196	\$6,998	\$17,239	\$1,654	\$18,893	\$22,549	\$1,866	\$24,416
560	Church	1,000 SFGFA	\$2,066	\$426	\$2,492	\$6,138	\$589	\$6,727	\$8,029	\$665	\$8,694
565	Day Care Center	1,000 SFGFA	\$9,972	\$2,056	\$12,028	\$29,630	\$2,843	\$32,472	\$38,757	\$3,208	\$41,965
590	Library	1,000 SFGFA	\$15,823	\$3,263	\$19,086	\$47,016	\$4,511	\$51,527	\$61,498	\$5,090	\$66,589
610	Hospital	1,000 SFGFA	\$2,549	\$526	\$3,075	\$7,575	\$727	\$8,301	\$9,908	\$820	\$10,728
620	Nursing Home	1,000 SFGFA	\$2,220	\$458	\$2,677	\$6,595	\$633	\$7,228	\$8,627	\$714	\$9,341
710	General Office Building	1,000 SFGFA	\$3,275	\$675	\$3,950	\$9,730	\$933	\$10,663	\$12,727	\$1,053	\$13,780
720	Medical-Dental Office Building	1,000 SFGFA	\$9,384	\$1,935	\$11,319	\$27,883	\$2,675	\$30,558	\$36,472	\$3,019	\$39,491
731	State Motor Vehicles Department	1,000 SFGFA	\$43,799	\$9,033	\$52,832	\$130,142	\$12,486	\$142,628	\$170,231	\$14,090	\$184,321
732	United States Post Office	1,000 SFGFA	\$32,240	\$6,649	\$38,888	\$95,794	\$9,191	\$104,985	\$125,303	\$10,371	\$135,674
750	Office Park	1,000 SFGFA	\$3,253	\$671	\$3,923	\$9,664	\$927	\$10,592	\$12,641	\$1,046	\$13,688
760	Research and Development Center	1,000 SFGFA	\$2,352	\$485	\$2,836	\$6,987	\$670	\$7,657	\$9,139	\$756	\$9,896
770	Business Park	1,000 SFGFA	\$2,769	\$571	\$3,340	\$8,228	\$789	\$9,017	\$10,762	\$891	\$11,653
812	Building Materials and Lumber Store	1,000 SFGFA	\$12,219	\$2,520	\$14,739	\$36,307	\$3,483	\$39,790	\$47,490	\$3,931	\$51,421
813	Free-Standing Discount Superstore	1,000 SFGFA	\$6,962	\$1,436	\$8,398	\$20,687	\$1,985	\$22,672	\$27,059	\$2,240	\$29,299
814	Variety Store	1,000 SFGFA	\$7,335	\$1,513	\$8,848	\$21,795	\$2,091	\$23,886	\$28,509	\$2,360	\$30,869
815	Free-Standing Discount Store	1,000 SFGFA	\$5,845	\$1,205	\$7,050	\$17,368	\$1,666	\$19,034	\$22,717	\$1,880	\$24,598
816	Hardware/Paint Store	1,000 SFGFA	\$4,636	\$956	\$5,592	\$13,774	\$1,321	\$15,095	\$18,016	\$1,491	\$19,508
817	Nursery (Garden Center)	1,000 SFGFA	\$19,867	\$4,097	\$23,964	\$59,031	\$5,664	\$64,694	\$77,215	\$6,391	\$83,606
820	Shopping Center	1,000 SFGLA	\$4,088	\$843	\$4,931	\$12,147	\$1,165	\$13,312	\$15,889	\$1,315	\$17,204
826	Specialty Retail Center	1,000 SFGLA	\$11,032	\$2,275	\$13,307	\$32,780	\$3,145	\$35,925	\$42,878	\$3,549	\$46,427

841	Automobile Sales	1,000 SFGFA	\$6,153	\$1,269	\$7,422	\$18,284	\$1,754	\$20,038	\$23,916	\$1,980	\$25,896
843	Automobile Parts Sales	1,000 SFGFA	\$6,227	\$1,284	\$7,512	\$18,503	\$1,775	\$20,279	\$24,203	\$2,003	\$26,206
848	Tire Store	1,000 SFGFA	\$4,920	\$1,015	\$5,934	\$14,618	\$1,402	\$16,020	\$19,120	\$1,583	\$20,703
850	Supermarket	1,000 SFGFA	\$7,128	\$1,470	\$8,598	\$21,179	\$2,032	\$23,211	\$27,703	\$2,293	\$29,996
851	Convenience Market (Open 24 Hours)	1,000 SFGFA	\$38,186	\$7,875	\$46,061	\$113,462	\$10,886	\$124,348	\$148,413	\$12,284	\$160,696
857	Discount Club	1,000 SFGFA	\$10,175	\$2,098	\$12,274	\$30,234	\$2,901	\$33,134	\$39,547	\$3,273	\$42,820
862	Home Improvement Superstore	1,000 SFGFA	\$3,065	\$632	\$3,697	\$9,108	\$874	\$9,982	\$11,914	\$986	\$12,900
880	Pharmacy/Drugstore without Drive-Through	1,000 SFGFA	\$10,299	\$2,124	\$12,423	\$30,601	\$2,936	\$33,537	\$40,028	\$3,313	\$43,341
881	Pharmacy/Drugstore with Drive-Through	1,000 SFGFA	\$8,117	\$1,674	\$9,791	\$24,119	\$2,314	\$26,433	\$31,549	\$2,611	\$34,160
890	Furniture Store	1,000 SFGFA	\$427	\$88	\$515	\$1,269	\$122	\$1,391	\$1,660	\$137	\$1,797
911	Walk-in Bank	1,000 SFGFA	\$26,658	\$5,498	\$32,155	\$79,208	\$7,600	\$86,808	\$103,608	\$8,576	\$112,183
912	Drive-in Bank	1,000 SFGFA	\$16,033	\$3,306	\$19,339	\$47,638	\$4,571	\$52,208	\$62,312	\$5,158	\$67,470
925	Drinking Place	1,000 SFGFA	\$34,042	\$7,020	\$41,062	\$101,149	\$9,705	\$110,854	\$132,307	\$10,951	\$143,258
931	Quality Restaurant	1,000 SFGFA	\$8,425	\$1,737	\$10,162	\$25,033	\$2,402	\$27,434	\$32,744	\$2,710	\$35,454
932	High-Turnover (Sit-Down) Restaurant	1,000 SFGFA	\$16,152	\$3,331	\$19,483	\$47,994	\$4,605	\$52,598	\$62,778	\$5,196	\$67,974
933	Fast-Food Restaurant without Drive-Through	1,000 SFGFA	\$45,775	\$9,440	\$55,215	\$136,012	\$13,050	\$149,062	\$177,910	\$14,725	\$192,635
934	Fast-Food Restaurant with Drive-Through	1,000 SFGFA	\$42,562	\$8,777	\$51,339	\$126,464	\$12,133	\$138,597	\$165,420	\$13,692	\$179,112
936	Coffee/Donut Shop without Drive-Through	1,000 SFGFA	\$22,547	\$4,650	\$27,197	\$66,994	\$6,428	\$73,422	\$87,631	\$7,253	\$94,884
937	Coffee/Donut Shop with Drive-Through	1,000 SFGFA	\$32,538	\$6,710	\$39,248	\$96,679	\$9,276	\$105,955	\$126,461	\$10,467	\$136,928
938	Coffee/Donut Kiosk	1,000 SFGFA	\$35,866	\$7,396	\$43,262	\$106,569	\$10,225	\$116,793	\$139,397	\$11,538	\$150,934
944	Gasoline/Service Station	VFP	\$12,038	\$2,482	\$14,520	\$35,768	\$3,432	\$39,200	\$46,786	\$3,872	\$50,658
945	Gasoline/Service Station with Convenience Market	VFP	\$3,811	\$786	\$4,596	\$11,323	\$1,086	\$12,409	\$14,810	\$1,226	\$16,036
946	Gasoline/Service Station with Car Wash	VFP	\$7,623	\$1,572	\$9,195	\$22,650	\$2,173	\$24,823	\$29,627	\$2,452	\$32,080

Source: ITE Trip Generation Manual, 9th Edition, compiled by FCS GROUP

¹Primary trip adjustments include pass by trips and diverted/linked trips.

²Person trips calculated with 10.89 person trips equal to one PM peak hour trip provided by DKS based on Metro RTP Gamma Model

Abbreviations

CFD - commercial flights per day

ODU - occupied dwelling unit

SFGFA - square feet of gross floor area

SFGLA - square feet of gross leasable area

VFP - vehicle fueling position

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