

***Town of Chester,
New Hampshire***

Traffic Impact Fee

Prepared for
Town of Chester, New Hampshire

Prepared by
Southern New Hampshire Planning Commission

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Town of Chester Impact Fees

Traffic Impact Fee

Methodology:

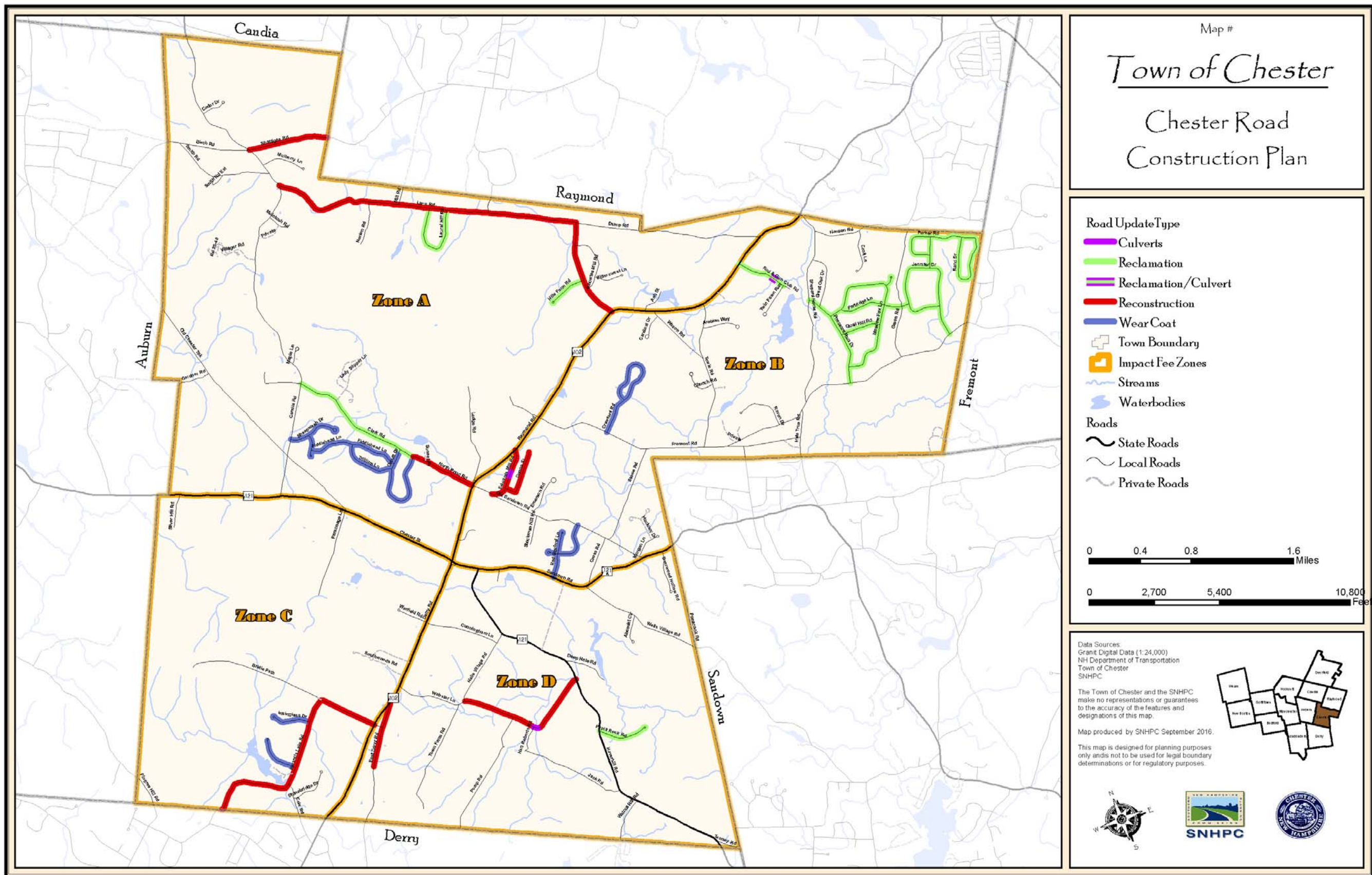
This Traffic Impact Fee is modeled after the “Sample Roadway Impact Fee” procedure. The “Sample Roadway Impact Fee” is a general traffic impact fee methodology developed by VHB/Vanasse Hangen Brustlin, Inc. This impact fee system does not require a municipality to have in place a well-defined future roadway improvement program (i.e. adopted engineering plans or studies to guide capital improvements). The procedure uses average construction costs rather than the cost of specific roadway improvements, daily trips rather than peak hour trips, and average trip lengths rather than site-specific trip assignment.

This methodology is a relatively new procedure which has been applied by various New Hampshire communities, including the Town of Hooksett within the Southern New Hampshire Planning Region. The Town of Deerfield also employs a similar approach as part of an Impact Fees Analysis and Fee Schedule prepared for the Town in 1994.

The methodology considers the cost of providing a roadway system that can accommodate new vehicle trips independent of the existing capacity of the roadway. The procedure simply multiplies the average expected vehicle miles (number of trips times the average trip length) for a particular use times the cost of constructing a lane-mile.

While the Town of Chester has prepared a Road Construction Plan which is included within the Town’s updated 2016-2023 CIP – as well as the following attached updated Chester Road Construction Plan map as recommended by the Town Road Agent, there is no official adopted future roadway improvement plan for the Town. Because the Town of Chester does not have in place an official future roadway improvement plan, the “Sample Roadway Impact Fee” procedure represents the most appropriate impact fee methodology to employ in developing transportation impact fees for the Town of Chester.

The methodology provides the Town a means to equitably share the cost of constructing roadway improvements. The basis of the procedure is that the Town of Chester is responsible for addressing or fixing existing roadway deficiencies while future users of the transportation system will be responsible for their proportionate share of the cost of providing sufficient capacity to accommodate future growth. The future users are charged a user or impact fee through the private developer.



The “Sample Roadway Impact Fee” methodology meets the “rational nexus” test, which is the basis of fairness in allocating impact fees. To meet the rational nexus test, the impact fee must be determined in proportion to the impact of the user on the roadway improvement or in proportion to the benefit that the user derives from the improvement. An impact fee system that fails to demonstrate this direct link of proportional impact or benefit could be subject to legal challenge.

Methodology/Calculating the Fee:

The Traffic Impact Fee, using the “Sample Roadway Impact Fee” methodology, for any given land use is determined as follows:

- Estimate the total daily vehicle trips generated by the particular use. The trip estimates are based on the Institute of Transportation Engineers’ publication Trip Generation.
- Divide the total daily vehicle trips by two. This is done to avoid double counting. Otherwise a person’s trip from home to work would be counted as two trips when it’s actually only one trip.
- Apply an adjustment factor to the total one-way vehicle trips to establish the number of new one-way vehicle trips. The trips generated by certain land uses such as retail are not all new trips as a portion of the trips are drawn from the existing traffic stream.
- Multiply the number of new trips by the average trip length to obtain vehicle land miles. The average trip length for all residential land use categories for the Town of Chester has been determined to be 9.7 miles for residential uses and 6.4 miles for nonresidential uses based on the 2009 National Household Travel Survey, published by US Department of Transportation, Federal Highway Administration, June 2011.
- Multiply the vehicle lane miles for each category by the estimated average cost to box cut and total rebuild a lane-mile of roadway (\$624,994) based on an average estimate of \$118.37 per linear foot (provided by the Town Road Agent) and divide by the daily capacity of a lane of roadway at a Level of Service D (8,800 vph). This works out to be a rounded cost of \$71.02 per vehicle lane mile (\$624,994 divided by 8,800 vph). The average cost to add 1.5 inch wear coat, grind and repave or box cut and rebuild a lane-mile of roadway (\$624,994) in the Town of Chester is based upon the Town Road Agent’s costs for roadway construction as well as road base materials (gravel).
- The cost per vehicle lane mile is adjusted by .1032 annual inflation index used by NH DOT in costing projects.
- A 25 percent credit is applied to account for state and federal grants and funding the town receives for traffic improvements.
- Finally, all fees are presented in terms of easy to apply variables, such as; “per unit” for residential and “per square foot” for all other uses.

A traffic impact fee can also be calculated for proposed uses that are not specifically identified under a land use category in the Traffic Impact Fee Matrix. This can be done by estimating the number of new daily vehicle trips for the particular use and multiplying that number by \$71.02, which is the estimated cost per vehicle lane mile.

The Institute of Transportation Engineer's, ("ITE") publication Trip Generation should be used to determine vehicle trip estimates. Note that estimating vehicle trips for non-specified or unique cases not included in the ITE manual should be determined by a qualified traffic engineer or the Southern New Hampshire Planning Commission.

Having established the impact fee, four Traffic Impact Fee Zones are established – Zone A, B, C and D, as shown on the Town of Chester's Construction Plan. These zones were developed by the Town Road Agent considering the road network of the Town and relative location of proposed future road reconstruction and paving projects.

The Town of Chester will need to maintain separate traffic impact fee accounts for each zone to ensure that fees that are collected within a particular zone are expended within the same zone. Maintaining separate accounts provides the direct link between the fee and the benefit derived by the user, which is necessary to meet the rational nexus test.

Using the Procedure

The application of the traffic impact fee is straightforward. To determine the Traffic Impact Fee for specific development project, simply identify the appropriate land use in the first column of the Traffic Impact Fee Matrix, which is provided at the end of this report. Town staff should have a copy of ITE's Trip Generation, 7th edition, by the Institute of Transportation Engineers, which will be helpful in selecting appropriate land use categories and provides more specific detail on trip generation data and sample size. If Town staff does not have a copy of Trip Generation, 7th edition it is available along with assistance in using it at the Southern New Hampshire Planning Commission office. Once the appropriate land use category is selected, move across the right column in the Traffic Impact Fee Matrix to obtain the fee per square footage of the development, or in the case of residential, multiply by the number of dwelling units.

It is important to recognize that Town officials will be responsible for making key decisions such as choosing the appropriate land use and recognizing unique development projects where the non-specific use rate should be applied (see footnote at the bottom of the Traffic Impact Fee Matrix). The non-specific use rate is presented in terms of dollars per new daily trips.

Construction Cost Adjustment

Because the construction cost estimates that were developed for use in the Traffic Impact Fee procedure are in present day dollars, the procedure has been designed to allow the fee structure to be adjusted annually for inflation. Engineering News Record (ENR) has been tracking a construction cost index (CCI) since 1921 and publishes the index. In addition,

the New Hampshire Department of Transportation (NH DOT) is currently using an annual inflation rate of 1.032 percent for costing out transportation projects in 2016. Although the Traffic Impact Fee Matrix will be provided to the town on an Excel spreadsheet, the estimated cost and established traffic impact fees will need to be adjusted annually in the future by simply inputting the current year CCI or NH DOT inflation rate to update the cost.

Town Impact Fee Ordinance

The Town of Chester has an Impact Fee Ordinance in place (Fair Share Contribution, Article 14, Town of Chester Zoning Ordinance, adopted May 8, 2001 and amended as of May 14, 2002 that allows the Town to collect impact fees for capital facilities owned or operated by the municipality as authorized under RSA 674:21, Innovative Land Use Controls. As defined in the statute, capital facilities include, but are not limited to: “water treatment and distribution facilities; wastewater treatment and disposal facilities; sanitary sewers; storm water drainage and flood control facilities; public road systems and rights of way; municipal office facilities; public school facilities; the municipality’s proportional share of capital facilities of a cooperative or regional school district of which the municipality is a member; public safety facilities; and recreational facilities not including public open space.”

The Traffic Impact Fee established by this report is consistent with the Town’s existing Impact Fee Ordinance and once adopted by the Planning Board (following a public hearing); the Traffic Impact Fee can be incorporated into the Town’s ordinance. It is recommended that the Planning Board review the Town’s Fair Share Contribution Ordinance to make sure that it is consistent with RSA 674:21 before adopting this Traffic Impact Fee.

Traffic Impact Fee Assessment

It is important that all Traffic Impact Fees imposed by the Town of Chester pursuant to the following Traffic Impact Fee Matrix be assessed at the time of Planning Board approval of a subdivision plat or site plan. When no Planning Board approval is required, or has been made prior to the adoption or amendment of the impact fee ordinance, traffic impact fees should be assessed prior to, or as a condition for, the issuance of a building permit or other appropriate permission to proceed with development.

Traffic Impact Fee Collection

It is equally important that all Traffic Impact Fees be collected at the time a certificate of occupancy permit is issued. If no certificate of occupancy is required, traffic impact fees can be collected at time of building permit or when the development is ready for its intended use.

These requirements, however, do not prevent the Town of Chester and the assessed party from establishing an alternate, mutually acceptable schedule of payment of impact fees in effect at the time of subdivision plat or site plan approval by the Planning Board. If an alternative schedule of payment is established, the Town of Chester may require developers to post bonds, issue letters of credit, accept liens, or otherwise provide suitable measures of security so as to guarantee future payment of the assessed impact fees in accordance with RSA 674:21.

Waiver of Traffic Impact Fee

A subdivision or site plan applicant may request a waiver from the Traffic impact fees, by submitting an application for waiver in accordance with the requirements set forth in Article 14.9 of the Chester Zoning Ordinance.

Land Use Categories

This Traffic Impact Fee procedure provides common land use categories and provides a fee per vehicle trip that can be applied to proposed land uses that do not easily fit into any specific land use categories.

The Traffic Impact Fee Matrix is provided at the end of this section of the report. The following provides a brief description of each of the land use categories that are included in the table.

Residential Uses:

Single-Family Detached – Single-Family detached housing includes all single-family detached homes on an individual lot, including manufactured homes.

Duplex (2 Attached Units) – A single-family dwelling attached to one other single-family dwelling by a common wall or other means.

Multi-family (3-6 Units) – Multi-family housing comprises a residential building designed to occupy three (3) to six (6) families that have separate housekeeping facilities whether or not attached by common vertical walls or other means including apartment houses, condominiums, cooperatives or other residences involving a form of shared ownership.

Apartment Unit in Mixed-Use Building – Apartments Units in Mixed-Use Buildings are rental dwelling units that co-exist with commercial businesses within the same building (normally above the commercial units).

Condominiums/Townhouse/ – A residential condominium is real property or any interest therein pursuant to RSA 356-B:3 V. In addition, any buildings involving cooperative ownership or condominium shall be considered a condominium. A residential townhouse has at least one or more adjacent single-family owned unit normally connected by a shared vertical wall. Both condominiums and townhouses are included in this land use category

Mobile Home – A structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. It does not include recreational vehicles or travel trailers. The term includes but is not limited to, the definition or “mobile homes” as set forth in regulations governing the Mobile Home Safety and Construction Standards Program (24 CFR 3282.7 (a)).

Senior Housing – senior adult housing generally includes independent elderly living developments including age-restricted housing. These communities, which often house active but retired adults, would be expected to generate fewer vehicle trips than non-age restricted developments.

Non-Residential Uses:

General Office – A general office building houses multiple tenants; it is a location where affairs of businesses, commercial or industrial organizations, or professional persons or firms are conducted. An office building may contain a mixture of tenants.

Single Tenant Office – A single tenant office building generally contains the offices, meeting rooms, and space for file storage and data processing of a single business or company and possibly other service functions including a cafeteria or restaurant.

General Light Industrial – Light industrial facilities usually employ fewer than 500 persons and have an emphasis on activities other than manufacturing. Typical light industrial activities include printing plants, material testing laboratories, assemblers of data processing equipment, and power stations. Most light industrial facilities are freestanding and devoted to a single use.

Manufacturing – Manufacturing facilities are areas where the primary activity is the conversion of raw materials or parts into a finished product. Size and type of activity may vary substantially from one facility to another. Manufacturing facilities generally also have office, warehouse, research, and associated functions.

Warehousing – Warehouses are primarily devoted to the storage of materials; they may also include office and maintenance areas.

Small Retail (Specialty Retail Center) – Specialty retail centers are generally small retail stores or small strip shopping centers that contain a variety of retail shops and

specialize in apparel, hard goods, and services such as real estate offices, dance studios, florists, and small restaurants.

Quality Restaurant – Quality restaurants usually have turnover rates of an hour or longer. Generally, quality restaurants do not serve breakfast, many do not serve lunch, but all serve dinner. Reservations are often required at these restaurants and they are typically not chains.

High Turnover Restaurant – High turnover restaurants usually have turnover rates of an hour or less. This type of restaurant is usually moderately priced and frequently belongs to a restaurant chain. Generally these establishments serve lunch and dinner; they may also be open for breakfast and are sometimes open 24 hours a day. Some of these restaurants may also contain a bar area for serving food and alcoholic drinks.

Fast Food Restaurant with Drive-Through Window – Fast food restaurants are characterized by a large carryout clientele, long hours of service, and high turnover rates.

Shopping Center – A shopping center is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. A shopping center's composition is related to its market area in terms of size, location, and type of store. A retail center also provides on-site parking facilities sufficient to serve its own parking demands.

Supermarket – Supermarkets are typically freestanding retail stores selling a complete assortment of food, food preparation and wrapping materials, household cleaning and servicing items. Supermarkets may also contain facilities such as money machines, photo centers, pharmacies, and video rental areas.

Self Service Car Wash – Self Service car washes allow manual cleaning of vehicles by providing stalls to park and wash vehicles.

Automated Car Wash – Automated car washes are facilities that allow for the mechanical cleaning of the exterior of vehicles. Manual cleaning and car detailing services may also be available at these facilities.

Mini-Warehouse – Mini-warehouses are buildings in which a number of storage units or vaults are rented for the storage of goods. They are typically referred to as “self-storage” facilities. Each unit is physically separated from other units, and access is usually provided through an overhead door or other common access point.

Chester, Traffic Impact Matrix, 2016

Land Use Categories	Trips per Day	One-way Trips	Average Trip Length	% New Trips	Vehicle Lane Miles	Cost per Vehicle Lane Mile	Construction Cost Adjustment*	Credit**	Maximum Sustainable Fee***	
Residential Uses (\$/Unit)										
Single Family-Detached	9.57	4.79	9.7	100%	46.46	\$3,299.59	\$3,640.11	\$910.03	\$2,730.08	per unit
Apartment in Mixed Use	6.72	3.36	9.7	100%	32.59	\$2,314.68	\$2,554.00	\$638.50	\$1,915.50	per unit
Condo/Townhouse	5.86	2.93	9.7	100%	28.42	\$2,018.46	\$2,226.76	\$556.69	\$1,670.07	per unit
Duplex (Two Attached Units)	9.57	4.79	9.7	100%	46.46	\$3,299.59	\$3,640.12	\$910.03	\$2,730.09	per unit
Multi-Family (3+ Units)	6.59	3.3	9.7	100%	32.01	\$2,273.35	\$2,507.95	\$626.99	\$1,880.96	per unit
Mobile Home	4.99	2.5	9.7	100%	24.25	\$1,722.24	\$1,899.97	\$474.99	\$1,424.98	per unit
Senior Housing (62 years & older)	3.71	1.86	9.7	100%	18.04	\$1,281.20	\$1,413.41	\$353.35	\$1,060.06	per unit
Non-Residential Uses (\$/sq.ft)***										
Automated Car Wash	41	20.5	6.4	70%	39.36	\$2,795.35	\$3,083.82	\$770.96	\$2,312.87	per wash stall
Self Service Car Wash	132.8	66.4	6.4	70%	127.49	\$9,054.34	\$9,988.74	\$2,497.18	\$7,491.56	per establishment
General Office	11.01	5.51	6.4	100%	35.26	\$2,504.17	\$2,762.62	\$690.66	\$2.07	per sq. ft.
Single Tenant Office	11.57	5.79	6.4	100%	37.05	\$2,631.29	\$2,902.88	\$725.72	\$2.17	per sq. ft.
General Light Industrial	6.97	3.49	6.4	100%	22.33	\$1,585.88	\$1,749.54	\$437.39	\$1.31	per sq. ft.
Manufacturing	3.82	1.91	6.4	100%	12.22	\$867.86	\$957.42	\$239.36	\$0.72	per sq. ft.
Warehousing	4.96	2.48	6.4	100%	15.87	\$1,127.09	\$1,243.40	\$310.85	\$0.93	per sq. ft.
Mini-Warehouse (per acre)	31.44	15.72	6.4	100%	100.68	\$7,150.29	\$7,888.20	\$1,972.05	\$5,916.00	per acre
Small Retail (Specialty Retail Center)	44.32	22.16	6.4	75%	35.46	\$2,518.37	\$3,212.93	\$803.23	\$2.41	per sq. ft.
Quality Restaurant	89.95	44.98	6.4	85%	43.19	\$3,067.35	\$3,383.90	\$845.98	\$2.53	per sq. ft.
High Turnover Restaurant	127.15	63.58	6.4	85%	60.04	\$4,264.04	\$4,794.08	\$1,176.02	\$3.61	per sq. ft.
Fast Food Restaurant	496.12	248.06	6.4	95%	79.38	\$5,637.57	\$6,219.36	\$1,554.84	\$4.66	per sq. ft.
Shopping Center (less than 100,000 sq.ft.)	86.58	43.28	6.4	75%	69.25	\$4,918.14	\$5,425.69	\$1,356.42	\$4.07	per sq. ft.
Shopping Center (100,000 sq.ft. or more)	53.28	26.64	6.4	75%	42.62	\$3,026.87	\$3,339.24	\$834.81	\$2.50	per sq. ft.
Supermarket	102.24	51.12	6.4	75%	81.79	\$5,808.73	\$6,408.20	\$1,602.05	\$4.80	per sq. ft.
Gas Station/Convenience Store	162.78	81.39	6.4	90%	52.09	\$3,699.43	\$4,081.21	\$1,020.30	\$3,060.91	per pump

*Includes DOT Construction Cost Adjustment Index of .1032

**Assumes 25% credit for state/federal grant funding to the Town.

***Assumes 1,000 sq. ft. minimum per use.

Note that the fees are expressed in dollars per unit for residential and dollars per unit square foot or acres or pumps for non-residential uses. For unique land use categories that are not found in the table, the impact fee can be determined by multiplying the number of new total one way daily trips generated by the site by \$71.02 per vehicle lane mile (cost of \$142.04 per foot/2) divided by 1,000.