

# **IMPACT FEES FOR PUBLIC SAFETY FACILITIES**

City of Dover, New Hampshire

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**Prepared for:**

Department of Planning and Community Development  
City of Dover  
288 Central Avenue  
Dover, New Hampshire 03820

**Prepared by:**

Bruce C. Mayberry, Planning Consultant  
49 Pineland Drive – Suite 202B - New Gloucester, Maine 04260  
(207) 688-8433 - email: [bcmplanning@securespeed.us](mailto:bcmplanning@securespeed.us)

## PUBLIC SAFETY IMPACT FEES: EXECUTIVE SUMMARY

This report provides a basis for the assessment of public safety impact fees in Dover, New Hampshire. The process of assessment is governed by the City's impact fee ordinance; the amount of an impact fee assessment may be determined by methods adopted by the Planning Board that document the proportional basis for the fees. Local impact fee ordinances and related assessment are authorized by New Hampshire RSA 674:21, V.

Impact fees are one-time charges to new development that are designed to offset the proportional impact of new development on the local public cost to provide public capital facilities. Since non-residential development places significant demands on public safety services, the impact fee schedule includes both residential and non residential uses. Two possible schedules of impact fees for public safety facilities are summarized below. The fees are shown per dwelling unit for residential uses and per square foot for commercial, industrial and institutional uses. The higher fee schedule (A) includes an allowance for fire department apparatus and capital equipment; a reduced fee schedule (B) includes only the public safety buildings of the Police and Fire Departments in the capital basis of the fee.

### Assessment Schedule A

PUBLIC SAFETY IMPACT FEE ASSESSMENT SCHEDULE INCLUDING VALUE OF FIRE APPARATUS & CAPITAL EQUIPMENT			
Use Category	Public Safety Impact Fees Per Dwelling Unit		
<b>General Residential Uses</b>	Police	Fire	<b>Total Public Safety</b>
Single Detached	\$276	\$530	<b>\$806</b>
Townhouse	\$276	\$467	<b>\$743</b>
Two to Three Family	\$418	\$418	<b>\$836</b>
Apartments 4+ Units	\$407	\$377	<b>\$784</b>
Manufactured Housing	\$166	\$597	<b>\$764</b>
	<b>Public Safety Impact Fees Per Square Foot</b>		
<b>Other Uses Based on Assessment Per Square Foot</b>	Police	Fire	<b>Total Public Safety</b>
Retail, Including Restaurants, Clubs	\$0.37	\$0.37	<b>\$0.74</b>
Offices and Commercial Services	\$0.14	\$0.12	<b>\$0.26</b>
Industrial, Transp, Whse, Communications	\$0.08	\$0.05	<b>\$0.13</b>
Nursing Homes & Assisted Living	\$0.00	\$0.60	<b>\$0.60</b>
Other Institutional Uses	\$0.33	\$0.31	<b>\$0.64</b>
Average Non-Residential or Other	\$0.26	\$0.23	<b>\$0.49</b>

### Assessment Schedule B

PUBLIC SAFETY IMPACT FEE ASSESSMENT SCHEDULE - POLICE AND FIRE STATION BUILDINGS ONLY			
Use Category	Public Safety Impact Fees Per Dwelling Unit		
<b>General Residential Uses</b>	Police	Fire	<b>Total Public Safety</b>
Single Detached	\$276	\$231	<b>\$507</b>
Townhouse	\$276	\$220	<b>\$496</b>
Two to Three Family	\$418	\$204	<b>\$622</b>
Apartments 4+ Units	\$407	\$188	<b>\$595</b>
Manufactured Housing	\$166	\$313	<b>\$479</b>
	<b>Public Safety Impact Fees Per Square Foot</b>		
<b>Other Uses Based on Assessment Per Square Foot</b>	Police	Fire	<b>Total Public Safety</b>
Retail, Including Restaurants, Clubs	\$0.37	\$0.19	<b>\$0.56</b>
Offices and Commercial Services	\$0.14	\$0.07	<b>\$0.21</b>
Industrial, Transp, Whse, Communications	\$0.08	\$0.02	<b>\$0.10</b>
Nursing Homes & Assisted Living	\$0.00	\$0.32	<b>\$0.32</b>
Other Institutional Uses	\$0.33	\$0.14	<b>\$0.47</b>
Average Non-Residential	\$0.26	\$0.11	<b>\$0.37</b>

The above impact fee assessments should be updated periodically by reviewing and modifying the assumptions of the impact fee calculation within this report. Among the variables that may be changed include the estimated capacity, scale and cost of capital facilities to be provided, their projected service population, and proportional demand on facilities from various land use sectors. The focus of such adjustments should be to create a fee that is proportional to the cost of providing capacity in capital facilities at the time that new development takes place.

The City may adopt separate fee schedules for each department, or assess a single impact fee for “public safety facilities”. In most cases, public safety fees are segregated into separate accounts for each department in the event that progress toward planned improvements differs between the two departments.

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## **A. INTRODUCTION**

### **1. Purpose of Report**

The purpose of this report is to establish a proportional method of calculation for impact fees to be assessed to new development for public safety facilities provided by the City of Dover.

### **2. Authority for Assessment and Limitations**

Impact fees in Dover may be assessed under the provisions of section 170-28.7 of the Dover Code. This authority delegates to the Planning Board the ability to adopt, amend and update methods and calculations for impact fee assessments. The City's ordinance provisions are authorized under New Hampshire RSA 674:21, V.

There are some important limitations imposed by the relevant authorizing statute (New Hampshire RSA 674:21, V.) These include: (1) the cost of upgrades to existing infrastructure cannot be paid for with impact fees (except as required to serve new development); (2) impact fees must be refunded if the City does not appropriate necessary non-impact fee funds for related capital facilities within six years of collection of the fee; and (3) impact fees may not accrue to the general fund.

Impact fees may be assessed either in anticipation of capital projects that will serve new development, or to recoup past capital investments made in anticipation of the needs to be generated by new development. Impact fees are best used where reserve capacity already exists in particular capital facility categories, or where an appropriation of funds to create capacity to serve new development is expected to take place within six years of the collection of the fee.

### **3. Proportionality Measures**

Both the Dover impact fee ordinance and New Hampshire RSA 674:21, V require that impact fees be proportional to the demand on capital facilities reasonably associated with new development. It is not necessary to demonstrate a direct link between actual usage of a particular capital facility by each individual development that is assessed an impact fee. In this report, the proportionality of an impact fee assessment is based on generalized estimates of the relative expected demand of various classes of property on services and related facilities, expressed on a per-dwelling unit basis for residential development and on a per-square-foot basis for non-residential development.

The impacts of new development on public schools, recreation facilities, and libraries are typically associated with the demands of residential development. In the case of other facilities such as water or sewer utilities, roads and public safety facilities, both commercial and residential developments contribute to service demands and therefore to capital facility needs.

In the field of public utilities (water, and sewer systems) direct demand on facility capacity is relatively easy to measure based on actual consumption and metered usage. But for facilities that provide services on "at-large basis", measures of demand are often indirect. For example,

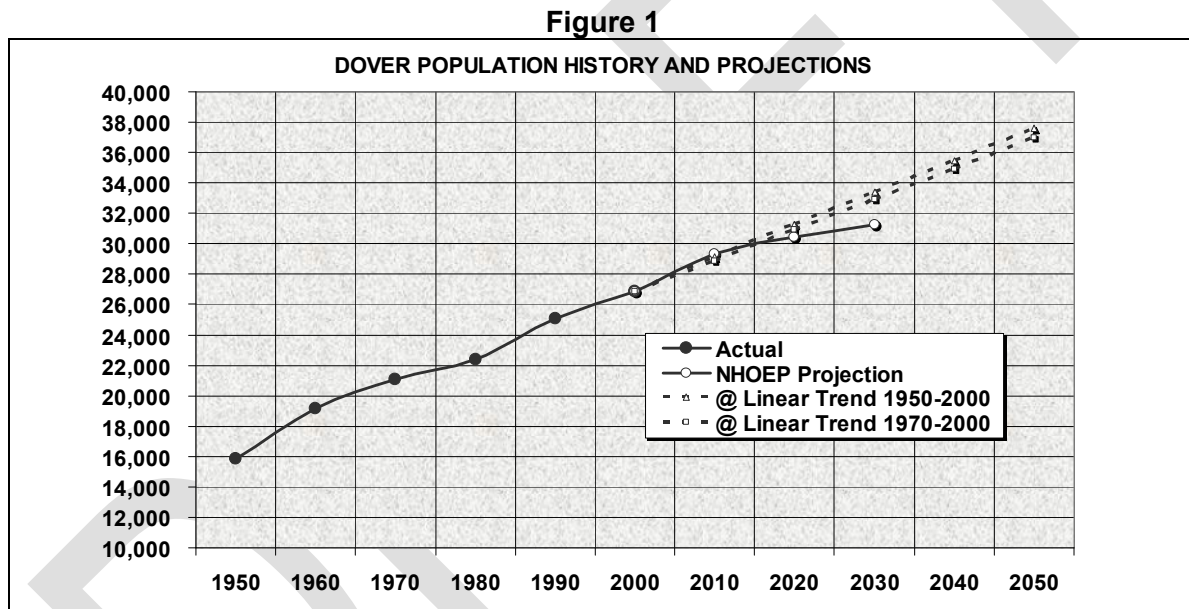
for public safety services, where data are available, calls for service by land use sector may be considered in developing a basis for proportional impact assessment. Measures of proportionality of service demand from commercial versus residential sectors may also include gross assessed value by property class, floor area of development, or other measures.

## B. RESIDENTIAL VS. NON-RESIDENTIAL DEVELOPMENT

### 1. Residential Demand

#### a. Population Trend and Projections

For residential development, the demands of growth are often measured in terms of population and/or housing units. Figure 1 illustrates historic trends and alternative projections of Dover’s population. Data from the Census years 1950 through 2000 are actual counts, while mathematical projections are shown for the intervening years.



The most recent population projection by the NH Office of Energy and Planning (NHOEP) forecasts a 2030 population of 31,250. The projections based on long term linear trends in Dover yield a 2030 projection of about 33,000. The linear projections, when extrapolated further, suggest future population of about 35,000 by 2040 and 37,000 by 2050. These projections, however, do not necessarily reflect the constraints of land availability or zoning that could limit future housing production and resident population growth.

#### b. Buildout Estimates from the Master Plan

In its 2007 update to the Land Use chapter of the City Master Plan, the City Planning Department has estimated that, based on estimates of developable land by zoning district, a potential for an additional 3,155 residential units (under current allowable densities).

According to NHOEP the City had 13,095 total dwelling units as of 2006. The total number of occupied units (households) as of 2006 was estimated at 12,584. The NHOEP estimates of population for 2006 showed a total population of 28,703. With a subtotal of 947 in group quarters and 27,756 persons in households estimated in 2006, average household size in Dover is estimated at 2.21 in 2006 to the 2000 total would bring estimated buildout units to about 16,250. Assuming a 97% occupancy rate and constant household size at 2.21 would equal a future buildout population estimate of about 34,500. If household size continues to decline, however, say to 2.10 by the buildout year, total population could be lower at about 32,760.

The buildout study also indicated availability of over 1,100 acres of developable land in the commercial, industrial and mixed use zones:

Commercial/Retail Districts	301 developable acres
Industrial Zoning Districts	629
Mixed Use Zoning Districts	87
Total	1,117

If we assume a conservative ratio of a 20% floor area ratio to developable land in these districts, the supportable growth in commercial/industrial floor area of 9.7 million square feet. If fully developed at this ratio, the gross leasable area of developed non-residential property would double.

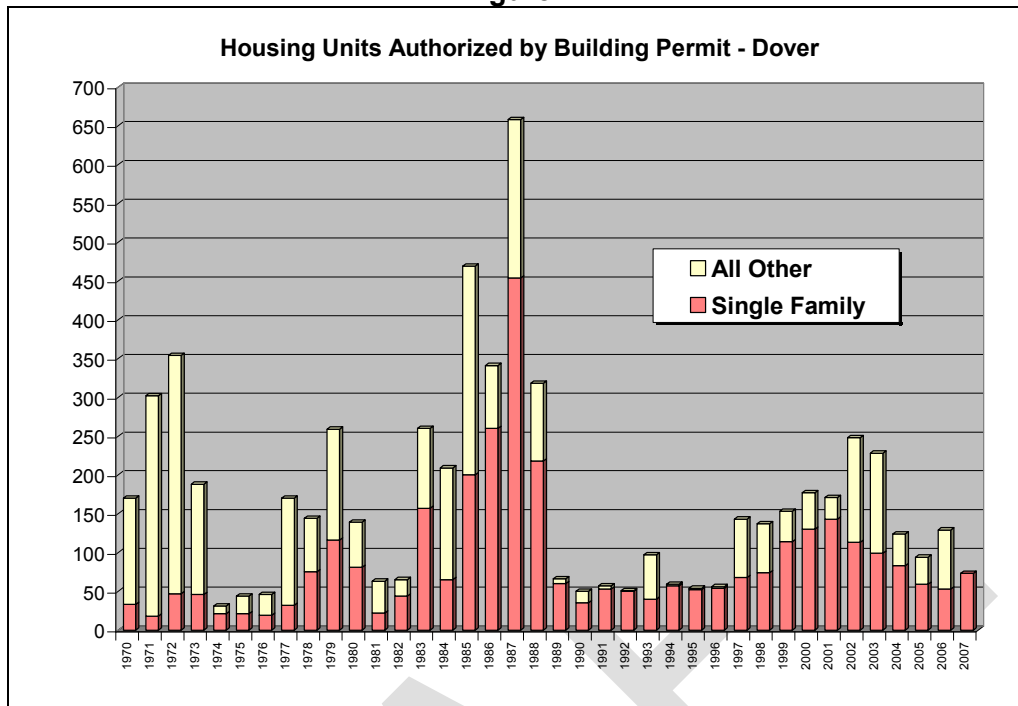
*c. Housing Units Authorized by Permit*

Table 1 and Figure 2 illustrate the history of residential development based on building permits issued in the City of Dover from 1970 through 2007. The long-term average for this entire period is approximately 170 residential units per year; for the period 2000-2007 the average has been 156 units per year. If an average growth of 150 units per year were maintained, buildout (as estimated in the Master Plan's Land Use Update) could be reached around the year 2028. The population affects of this housing growth could be higher if single family homes dominate new construction (single family homes have larger average household size).

**Table 1**

<b>Total Housing Units Authorized</b>				
Period	Single Family	2+ Family	Manufactured	All Types
1970s	428	1,191	89	1,708
1980s	1,561	941	86	2,588
1990s	597	212	48	857
2000-2007	753	458	33	1,244
<b>Average Annual Units Authorized</b>				
Period	Single Family	2+ Family	Manufactured	All Types
1970s	43	119	9	171
1980s	156	94	9	259
1990s	60	21	5	86
2000-2007	94	57	4	156

Figure 2



One of the advantages of impact fee assessments is that of capturing revenue in proportion to the amount of new development that actually occurs. Therefore in a slow development period such as the early 1990s, impact fee revenues would be comparatively low, but if a strong growth cycle occurs, such as that of the 1980s, impact fee revenues would rise.

#### 4. Nonresidential Demand

Measurements of the demand on services and capital facilities from the nonresidential sector may rely on indicators such as employment growth or the amount of floor area in nonresidential development in the community.

##### a. *Employment (Jobs in Dover)*

Figure 3 illustrates the number of private sector covered employment<sup>1</sup> (jobs located in Dover) and the employment growth trend from 1980 through 2006 based on New Hampshire Employment Security data. Two linear projections are illustrated for the period 2006 to 2030 for private covered employment. The first is based on the long-term linear trend from 1980 to 2006 and the second is based on a shorter term linear trend using base years from 1990 to 2006.

As of 2006, private sector covered employment in Dover was 14,373. The alternative trendlines in Figure 3 suggest that private sector employment in Dover could be between 17,000 and 19,400 in the year 2030. The ultimate number of jobs located within the City of Dover is

<sup>1</sup> Refers to jobs “covered” by unemployment compensation insurance, as reported by NH Employment Security, Labor Market Information Services. Covered employment excludes fully commissioned sales persons and the self employed.

also dependent on factors such as zoning, land availability for commercial development, allowable building height, coverage ratios and other factors.

**Figure 3**

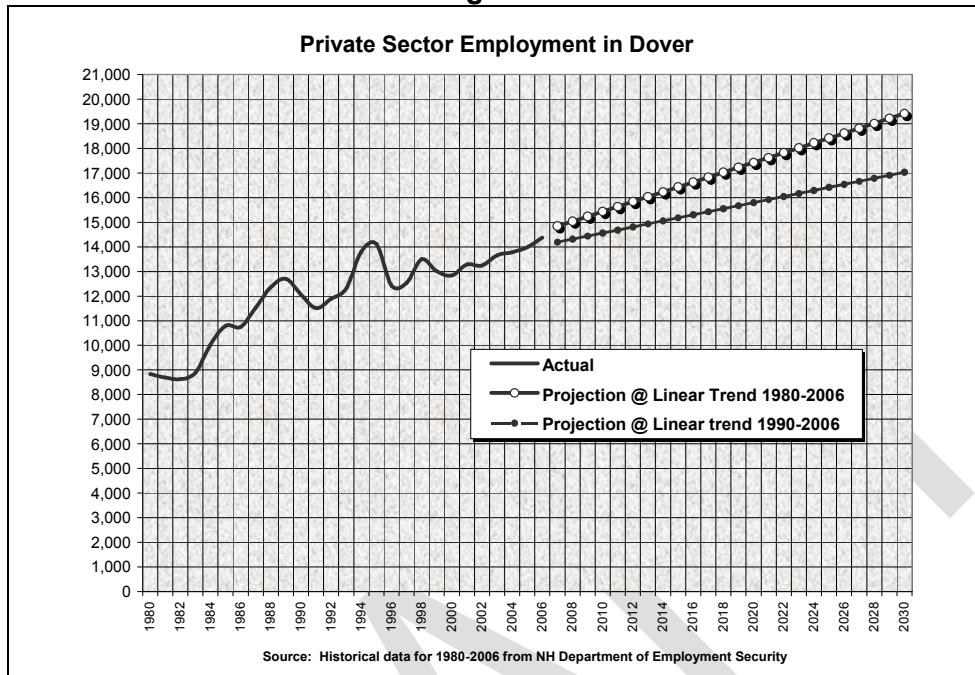
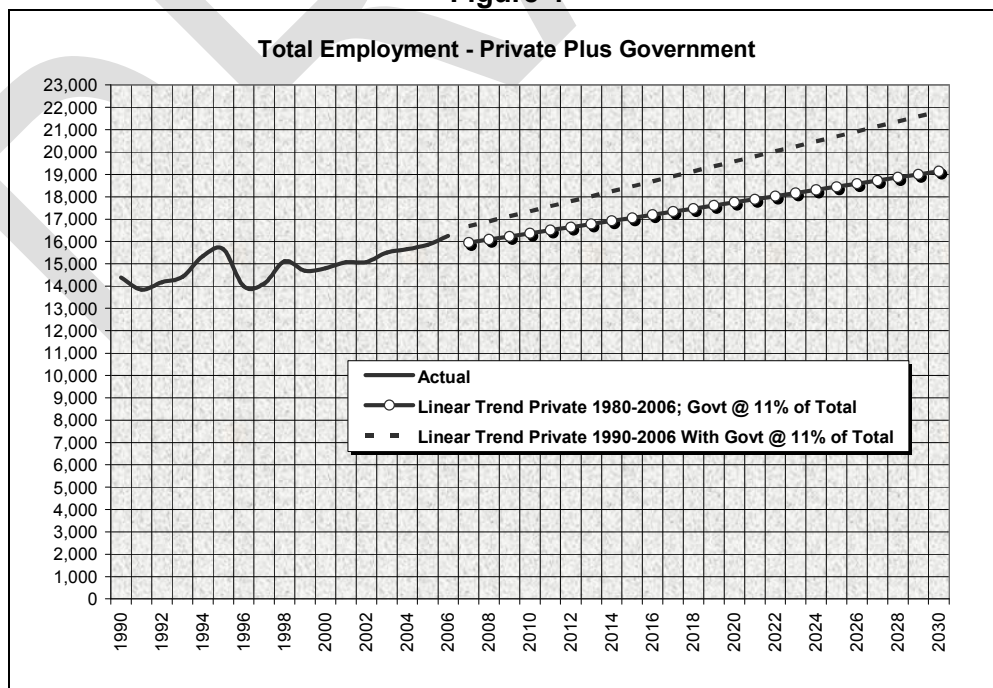


Figure 4 below provides a long-term projection of total employment, including government, that follows the higher growth trend based on long term changes from 1980-2006. Under this scenario, total employment in 2030 is projected at 21,800.

**Figure 4**





*b. Floor Area of Non-Residential Buildings*

The general mission of public safety services is the protection of persons and property. Therefore, measures such as population and employment as well as the built environment (expressed as square footage) may be used to estimate proportional demand ratios and relative impact fee assessments.

Table 2 below illustrates the estimated cumulative floor area (gross leasable area) of commercial, industrial, and institutional uses in Dover by year. This information was developed based on City assessment data and the actual year built assigned in the property records. The net average annual change in GLA per period is shown on the right side of the table. For long-term growth estimates, an average annual absorption of 120,000 square feet seems reasonable based on this information.

**Table 2**

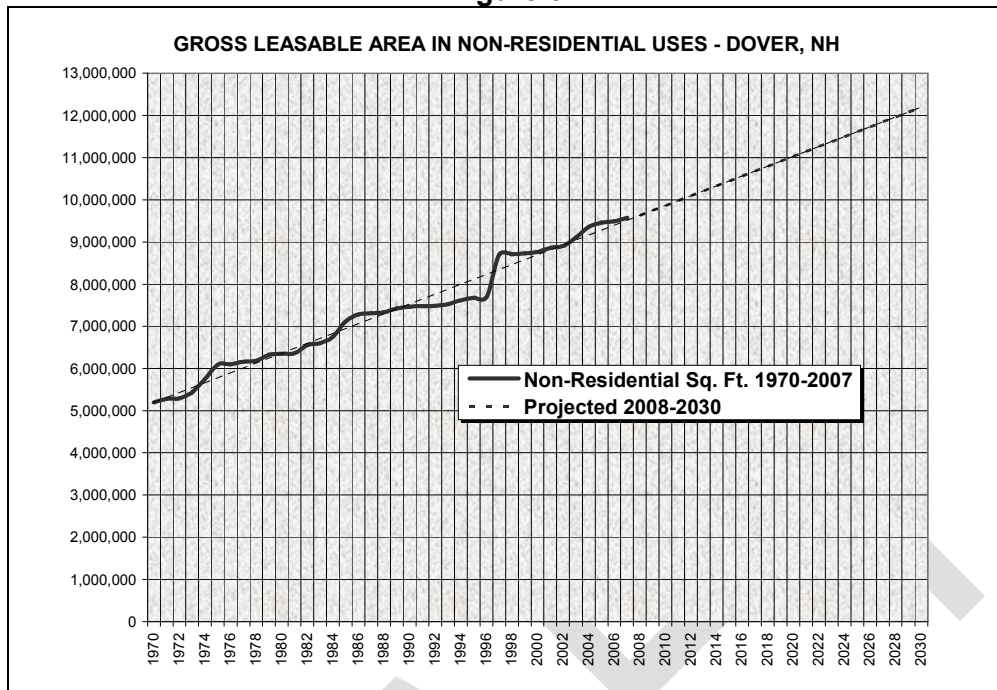
Year	Total Non-Residential Square Ft of GLA	Change From Prior Period	Average Annual
1960	4,205,065	n.c.	n.c.
1970	5,194,988	989,923	98,992
1980	6,351,893	1,156,905	115,691
1990	7,464,943	1,113,050	111,305
2000	8,766,105	1,301,162	130,116
2007	9,575,622	809,517	115,645

The average GLA per employee in Dover, based on the foregoing analysis is about 590 square feet per employee (including all uses). If average annual growth were 120,000 square feet of GLA per year between 2007 and 2030, and average floor area per employee remained constant, total employment would be just under 21,000 and non-residential floor area would total about 12.4 million square feet in 2030. (See Table 3 below). A linear trend analysis of floor area shows a similar projection in Figure 5 below.

**Table 3**

<b>NON-RESIDENTIAL SECTOR 2030 @ AVERAGE GROWTH IN GLA PER YEAR</b>			
Period	Total GLA in Non-Res. Uses	Private & Govt Employment	GLA Per Employee
2007 Estimate	9,600,000	16,300	589
Growth 2007-2030 @ 120,000 Sq. Ft. /Yr	2,760,000	4,686	589
Total in 2030	12,360,000	20,986	589

Figure 5



If the linear projection is extrapolated further, the projected GLA reaches 13 million square feet by the year 2037 and 14 million square feet by 2046. Based on the amount of developable land indicated in the City Master Plan land use update, the City may reach its current residential buildout horizon well before it reaches its potential for commercial-industrial development based on current zoning.

It should be noted that projections over this long term period reflect the history of the City only, and do not reflect potential shifts or relative future shares of regional economic development. In addition, such projections cannot anticipate changes in the zoning of developable land, which may take place in the future to effect a balance between residential uses and non-residential development and the desired jobs-housing linkage.

### 5. Growth Assumptions for Fee Calculations

For the purpose of establishing long-term growth assumptions for the Police and Fire & Rescue Department facilities, a horizon population of 35,000 persons has been assumed. This is the horizon used by the City’s architectural consultants in the 2007 space needs study for the Police Department in Dover. Based on the above analysis, this population could represent a residential “buildout” population based on the City Planning Department’s 2007 analysis of remaining developable land in residential zoning districts. Our earlier simple linear projections discussed in the population analysis above indicated that if past trends continue, this population could be reached by 2040. The separate linear projections of employment and gross leasable area in the non-residential sector indicate that by the same year, total non-residential floor area could total grow to about 13.6 million square feet of gross leasable area by that time. These residential and non-residential growth assumptions have been used in the impact fee calculations to estimate the proportionate share of facility demand that may be reasonably associated with new development.

## C. ANALYSIS OF PUBLIC SAFETY CALL DATA

As part of this study the Consultant cross-tabulated property public safety calls for service (for 2005 and 2006) with assessment data. The call data by address were provided from dispatch records provided by the Dover Police Department, then associated with parcel identification numbers and type of use (provided by the City Planning Department). There were a total of 40,426 calls for service associated with the Police Department over the two-year period, and 9,492 associated with the Fire & Rescue Department (including emergency medical services).

The Consultant integrated the call for service records with assessment data by matching the number of calls for service assigned to a parcel identification number with its assessment information. In cases where the call data were recorded with a street name, but not a particular street number, the assigned parcel identifications were sometimes assigned to a nearby vacant lot, parking lot, or government-owned property. For these calls, the Consultant estimated the proportion assigned to residential vs. non-residential uses based on the zoning district associated with the general location of these calls.

Total calls for the reporting period (2 years 2005-2006) were annualized and a ratio of average annual calls per living unit (residential uses) and calls per 1000 square feet (non-residential uses) were computed. Table 4 summarizes the tabulation of call data by use grouping. One of the imperfections of the data file is that the number of condominium units appears to be far below the actual count in the City. Therefore, it is likely that some calls to condominium units have been assigned to multifamily apartment uses within the combined data base.

### 1. Proportionate Demand: Residential vs. Non-Residential

There are two principal products of this analysis. One result is the estimated proportionate demand on public safety services between residential and non-residential uses. The second product is a comparison of the annual calls per living unit or per square foot associated with various subcategories of development. This provides a basis for estimating the residential vs. non-residential shares of demand on public safety services, and allows for differentiation between uses that may have higher or lower public safety demands per unit of development.

Based on existing and projected calls for service, the estimated proportionate split between residential and non-residential demands on the two departments is:

Police Department: 50% residential / 50% non-residential

Fire & Rescue Department: 60% residential / 40% non-residential

These proportions were used to assign the capital costs of new development to the two major development sectors. These ratios were derived by applying the call rate per unit (residential) and per 1000 square feet (non-residential) to base year characteristics (2007) and to horizon year characteristics. The average of the existing and future ratios of residential/non-residential demands have been applied in allocating costs to the two sectors in the impact fee models.

**Table 4**

SUMMARY TABULATION OF DOVER PUBLIC SAFETY CALLS (2005-2006) BY LAND USE CLASSIFICATION						
<b>Residential</b>	Calls for Service 2005-06			Number of Living Units	Annual Calls Per Living Unit	
	Police Dept	Fire Dept			Police Dept	Fire Dept
Single Family Home	7,911	2,609		6,075	0.65	0.21
Condominium	205	42		314	0.33	0.07
Duplex/Triplex	2,253	525		1,752	0.64	0.15
Multi-Family Apts 4+ Unit (Total)	7,780	2,409		5,024	0.77	0.24
Assisted Senior Housing Age 62+ (ST)	284	917		329	0.43	1.39
Assisted Family Housing	2,420	369		414	2.92	0.45
Other Market-Rate Multifamily	5,076	1,123		4,281	0.59	0.13
Manufactured Housing	294	201		518	0.28	0.19
<b>Residential Total</b>	<b>18,443</b>	<b>5,786</b>		<b>13,683</b>	<b>0.67</b>	<b>0.21</b>
<b>Commercial-Industrial</b>	Calls for Service 2005-06		Commercial Sq. Ft. (GLA)		Annual Calls Per 1000 Sq. Ft. GLA - Commercial	
	Police Dept	Fire Dept			Police Dept	Fire Dept
Retail	2,120	431	887,698		1.19	0.24
Retail With Apts Above	735	179	474,128		0.78	0.19
Restaurants & Clubs	1,513	289	178,466		4.24	0.81
Office	1,338	252	1,588,877		0.42	0.08
Commercial Service	1,849	319	706,847		1.31	0.23
Industrial, Transportation, Utility	2,452	355	3,302,316		0.37	0.05
<b>Commercial/Industrial Total</b>	<b>10,007</b>	<b>1,825</b>	<b>7,138,332</b>		<b>0.70</b>	<b>0.13</b>
<b>Government, Institutional &amp; Non-Profit</b>	Calls for Service 2005-06		Other Uses - Sq. Ft. (GLA)		Annual Calls Per 1000 Sq. Ft. GLA - Other	
	Police Dept	Fire Dept			Police Dept	Fire Dept
Government	2,365	399	415,474		2.85	0.48
Public Recreation	548	93	81,375		3.37	0.57
Education	1,418	318	838,086		0.85	0.19
Assisted Living & Nursing Home	173	361	394,320		0.22	0.46
Hospital	519	122	262,953		0.99	0.23
Religious	699	112	243,927		1.43	0.23
Non-Profit Other	651	124	151,619		2.15	0.41
<b>Total Gov't, Inst., Non-Profit</b>	<b>6,373</b>	<b>1,529</b>	<b>2,387,754</b>		<b>1.33</b>	<b>0.32</b>
<b>Total Excluding Government, Education, Public Rec</b>	<b>2,042</b>	<b>719</b>	<b>1,890,905</b>		<b>0.54</b>	<b>0.19</b>
<b>Other Calls - Vacant Land, Parking Lots, Other Assigned by General Land Use in Area</b>	Calls for Service 2005-06					
	Police Dept	Fire Dept				
Residential Areas	2,521	176				
Commercial Areas	3,082	176				
<b>Total Other</b>	<b>5,603</b>	<b>352</b>				
<b>Total Calls in Data Base</b>	<b>40,426</b>	<b>9,492</b>			<b>20,213</b>	<b>4,746</b>
					<b>Average Annual Call Rate</b>	
<b>Overall Calls by Sector</b>	Police Dept	Fire Dept	Units/Sq. Ft.		Police Dept	Fire Dept
<b>Overall Residential Sector Calls</b>	<b>20,964</b>	<b>5,962</b>	<b>13,683</b>	Per Unit	<b>0.77</b>	<b>0.22</b>
<b>Overall Non-Residential Sector Calls</b>	<b>19,462</b>	<b>3,530</b>	<b>9,526,086</b>	Per 1000 Sq. Ft.	<b>1.02</b>	<b>0.19</b>
<b>Share of Calls By Use Grouping</b>	<b>Police</b>	<b>Fire</b>				
Residential	51.9%	62.8%				
Commercial-Industrial	32.4%	21.1%				
Institutional, Religious, Oth.Non-Profit.	5.1%	7.6%				
Government, Education, Public Rec.	10.7%	8.5%				
<b>Estimated Non-Residential Share</b>	<b>48.1%</b>	<b>37.2%</b>				
<p>Sources: Calls for service by address provided by Dover PD from dispatch records; not all calls were recorded by street number. Street address associated with assessment parcel ID and use description by Dover Planning Department. Merging of assessment information with calls for service data and related tabulations by BCM Planning Consultant. Consultant added subcategories for multifamily housing, hospital, nursing homes and assisted living based on other inventories. (See report text for further description.)</p>						

## 2. Police Department Calls For Service

In general, the Police Department calls per living unit were somewhat higher than the average for multifamily apartments, especially for subsidized family housing. The call ratios were lower than the average unit for condominiums and manufactured housing.

In the non-residential sector (excluding public property) Police Department calls per 1000 square feet were highest for restaurants & clubs, retail and commercial service uses, and for religious and other institutional/non-profit uses. Demand was lower per 1000 square feet for office and industrial uses, assisted living and nursing homes.

## 3. Fire & Rescue Department Calls for Service

In the residential sector, higher call rates for Fire/EMS per unit were found among apartments for the elderly (probably owing to more frequent demand on ambulance services). Within the non-residential and institutional sectors, calls per 1000 square feet (excluding public uses) were highest for restaurants & clubs, assisted living and nursing homes, and miscellaneous non profit uses (not including religious uses and hospital).

## 4. Multipliers Based on Relative Call Frequency

Within the detailed model, multipliers were computed by land use groupings as a means to adjust the related impact fees from an average or “baseline” per living unit or per square foot to reflect relative demand of that use category on each department.

**Table 5: Multipliers assigned in model**

Multipliers Used in Impact Fee Model by Department (Relative Impact Per Unit or Per Sq. Ft.)		
Residential Uses	Police	Fire/EMS
Single Detached (Base)	1.00	1.00
Townhouse Condo	0.81	0.81
Two to Three Family	0.99	0.70
Apartments 4+ Units	0.91	0.61
Manufactured Housing	0.44	0.90
Non-Residential Uses	Police	Fire/EMS
Retail, Including Restaurants, Clubs	1.39	1.50
Offices and Commercial Services	0.68	0.81
Industrial, Transportation, Whse, Communic.	0.36	0.28
Nursing Homes & Assisted Living	0.21	2.35
Other Institutional Uses	1.39	1.40
Average Non-Residential (Base)	1.00	1.00

The relative call rates by land use are used later in the model to assign different impact fee amounts to various types of land use based on their relative call demand on the Fire & Rescue Department. For the purpose of impact fee assessment, five structural types were assigned for residential uses, and five for non-residential uses. In the case of townhouse/condominiums, due to the possibility of flawed data, proportionate impacts were assigned based on average household size in Dover (relative to single family homes) rather than based on the call multiplier method. The multipliers are intended to reflect the general relative impact of certain use categories on the demand for services, which in turn affects demands on personnel, equipment, and ultimately on building floor area for related capital facilities.

## D. POLICE DEPARTMENT IMPACT FEE

### 1. Police Department Personnel Ratio

While commercial as well as residential development has an impact on law enforcement, service levels are most often measured by the number of officers or sworn personnel per 1,000 residents. As each community has its own unique demands for police services, there is no established uniform standard for all communities. However, average ratios can be assigned to existing and future development based on expected or actual ratios of personnel to resident population. The average personnel ratios per 1000 persons tend to be higher in larger cities and towns of higher density that function as commercial centers. Data for 2005 for New Hampshire cities and towns of 25,000 or more are shown in Table 6 below.

**Table 6**

<b>POLICE DEPARTMENT STAFF RATIOS: NEW HAMPSHIRE 2005 For Municipalities with Population 25,000 +</b>		
<b>City or Town</b>	<b>Total Staff Per 1000 Pop. In 2005</b>	<b>Sworn Officers Per 1000 Pop. In 2005</b>
<b>Dover</b>	<b>2.37</b>	<b>1.95</b>
Merrimack	1.88	1.39
Rochester	2.18	1.63
Derry	2.16	1.73
Concord	2.27	1.75
Nashua	2.47	1.84
Manchester	2.39	1.84
<b>Averages for Communities With 25,000 Persons or More</b>	<b>2.32</b>	<b>1.78</b>
<b>Source Notes:</b>		
<i>Computed by Bruce C. Mayberry, Planning Consultant using 2005 population estimates from NH Office of Energy and Planning, and municipal-level data on law enforcement personnel compiled by U.S. Dept of Justice/FBI for 2005.</i>		

There are presently 47 full time sworn officers in the Dover Police Department, which represents a ratio of approximately 1.64 sworn personnel per 1,000 residents (using NHOEP population estimates for 2007). This ratio is lower than the City's 2005 ratio (see Table 6 above) and lower than the average for other NH communities with populations of 25,000 or more persons. Full time staff including officers and civilian personnel in the Dover Police Department is presently 62 persons, representing an average of 2.16 full time personnel per 1000 residents.

For the purpose of impact fee assessment, the model will assume that the ratio of officers and full time staff to resident population will remain constant for the horizon year projections of the City's residential and non-residential service base.

## 2. Police Department Facility Space and Cost

The Dover Police Department headquarters is presently located on the ground floor of City Hall, with some functions housed off-site in other freestanding buildings (impound area, garage, storage facilities). The overall gross floor area occupied by the Police Department is 18,553 square feet of which 14,413 square feet is in City Hall. The study included evaluation of renovation and new construction options, with the recommendation to relocate the Police Department to a new site and renovate City Hall for general administrative uses. The gross development cost for a new Police Station was estimated at approximately \$300 per square foot of floor area. Various future population estimates were considered in the analysis for the purpose of estimating future staff size and related building area recommendations. While the year 2030 population projections of the NHOEP (31,250) were referenced, the study also discussed recent rates of growth and a potential need to accommodate a population of 35,000. For the purpose of impact fee assessment, it is assumed that the recommended facility would be capable of supporting adequate staffing for a population of up to 35,000 persons.

## 3. Proportionate Demand by Land Use and Existing vs. New Development

Based on the call for service data by land use category, it is estimated that residential uses account for approximately 52% of total demand on the department, and non-residential uses (commercial-industrial-institutional and government) about 48%. For the purpose of impact fee assessment, it is assumed that these proportions will remain the same in the future.

The proportion of the total investment in related capital facilities required in the base year (2007) vs. the proportion serving new development is estimated based on existing and future call volume. The call volume is projected in the model using the overall number of Police Department residential calls at the overall annual average of 0.77 per housing unit and non-residential calls at the rate of 1.02 per 1000 square feet of non-residential development.

## 4. Impact Fee Calculation for Police Department

The existing Police Department headquarters is undersized and some functions are located in separate buildings outside the City Hall location. Gross building area (all buildings) averages about 364 square feet per officer (and only about 280 square feet per officer within City Hall space). The recommended building is about 33,462 square feet. If staffing ratios per 1000 persons remains constant at a population of 35,000, the floor area of a new facility would provide 538 square feet per officer in the horizon year. When the average floor area need of 538 square feet per officer is applied to the current (2007) population, it indicates that existing gross floor area is deficient by about 8,900 square feet.

In order to define a service capacity and cost allocation basis for an expanded Police Department facility serving estimated long term needs, the following assumptions have been made:

- a. The number of full time sworn personnel in the Police Department averages 1.64 per 1000 residents, and the number of total full time personnel averages 2.16 per 1000 persons. It is assumed that the ratio of sworn personnel to population will remain at or above this level in future years.
- b. The floor area needs of the department may reasonably be defined by the ratio of planned facility space to the maximum number of sworn personnel needed at a

population of 35,000 persons, or about 584 square feet per officer (and 440 square feet per full time Police Department employee) in the model.

- c. The gross development cost for a new Police Station is estimated as \$300 per square feet as of 2008. This amount may be changed in future updates to reflect actual development costs upon completion of construction, or updated periodically based on a construction cost index.
- d. About 50% of the demand on Police Department services will be generated by residential land uses (based on existing and projected calls for service) and 50% from non-residential uses.

The model in Table 7 incorporates projections of housing units, households, labor force and employment associated with a future service population of about 35,000. Because the existing space of the department is undersized relative to the City's current demand, much of the cost of a new police station is required to replace existing space and provide expansion sufficient to meet current needs. The portion of capital facility investment in the Police Department assigned to new development is approximately \$2.5 million.

The capital cost attributed to new development is then allocated between new residential development and new non-residential development based on the projected growth in dwelling units and non-residential floor area. The costs attributable to new residential are then computed as a per capita amount while the costs attributable to non-residential uses are assigned per square foot of new non-residential floor area.

The resulting estimates indicate an average capital cost impact assignable to new development at \$200 per capita for residential development and about \$0.32 per square foot for nonresidential development. These are average costs prior to adjustment for various types of uses, or for allowances related to existing deficiencies.

For the residential sector, the per capita cost is multiplied by the estimated number of persons per occupied dwelling unit in a single family home to arrive at base per unit capital cost per housing unit. These costs are then adjusted relative to police department calls per dwelling unit for other types of structures. (The exception is that the rate for condominiums has been assigned based on household size).

In the nonresidential sector, similar multipliers are applied to groupings of non-residential uses so that those uses with higher or lower call rates per 1000 square feet are assigned higher or lower costs per square foot in relation to the City average for all non-residential uses.

A final adjustment is made to account for the property taxes to be paid by new development toward rectifying existing space deficiencies in the Police Department. The present value cost to construct new Police Department space to rectify the pre-existing space deficiency is estimated at \$0.91 per \$1000 valuation. Credit allowances for each use are then computed based on average assessed values per dwelling unit (residential uses) or per square foot (non-residential uses). The net amount after credit allowances is the amount to be assessed as an impact fee.

As the City grows, its assessed valuation will increase and the value attributable to rectifying space deficiency will decline. Construction costs for capital facilities will also increase. These factors will allow the impact fee to increase over time.



**Table 7  
Police Department Building Cost per Unit of New Development**

<b>POLICE DEPARTMENT IMPACT FEE - DOVER, NH - 2008</b>			
<b>Service Demand Factor</b>	<b>Base Year (2007 Est)</b>	<b>Supportable Service Base With Building Expansion @ Design Population of 35,000</b>	<b>Change from Base Year</b>
<b>RESIDENTIAL SECTOR</b>			
Population (Residential Demand)			
Total Persons	28,703	35,000	6,297
Group Quarters Population	959	1,155	196
Household Population	27,744	33,845	6,101
Households (Occupied Units)	12,554	16,117	3,563
Average Household Size	2.21	2.10	-0.11
Total Housing Units @ 4% Overall Vacancy	13,077	16,788	3,711
<b>NON-RESIDENTIAL SECTOR</b>			
Employment (Total Including Government)	16,300	23,092	6,792
Non-Residential Floor Area Total	9,600,000	13,600,000	4,000,000
Non-Residential Uses: Floor Area Per Employee	589	589	
<b>CALLS FOR SERVICE ESTIMATE</b>			
Residential @ 0.8 Per Housing Unit	10,462	12,927	2,465
Non-Residential @ 1.0 per 1000 Sq. Ft.	9,600	13,872	4,272
Total Projected Annual	20,062	26,799	6,737
<b>Police Department Staffing</b>			
Full Time Sworn (Officers)	47	57	<i>Assumes constant staff ratio per 1000 population</i>
Full Time Staff including Officers	62	76	
Full Time Officers Per 1000 City Population	1.64	1.64	
Full Time Staff Per 1000 City Population	2.16	2.16	
<b>Floor Area of Facilities</b>			
	<b>Existing</b>	<b>With Future Expansion</b>	<b>Change from Base Year</b>
Floor Area of PD Buildings - (Gross Sq. Ft.)	18,553	33,462	14,909
Floor Area Per FT Officer	395	584	189
Floor Area Per FT Staff (Sq. Ft.)	299	440	141
Capacity of Building (Full Time Personnel)	42	76	34
Population Supported	19,508	35,000	15,492
Existing Floor Area Deficiency at Planned Std.	8,745		
<b>Demand on Capital Facilities</b>			
<b>Building Costs for Police Department HQ</b>	<b>Attributed to Existing Demand 2007</b>	<b>New Facility Total Cost</b>	<b>Portion Allocated to New Development</b>
Facility Development Cost Per Sq. Ft. 2008	(Calls Basis)	\$300	
Attributed Building Costs - Police Department	\$7,517,550	\$10,038,600	<b>\$2,521,050</b>
<b>Public Safety Demand By Sector - Police Department (Calls Basis)</b>			
	<b>Base Year</b>	<b>Future Year</b>	<b>Average</b>
Residential Share of Demand	52%	48%	50%
Non-Residential Share of Demand	48%	52%	50%
Cost Attributable to New Residential Development			\$1,260,525
Development			\$1,260,525
<b>Residential Cost Per Capita</b>			\$200
<b>Non-Residential Cost Per Sq. Ft.</b>			\$0.32
<b>PUBLIC SAFETY FACILITY COSTS PER UNIT OF NEW DEVELOPMENT - POLICE DEPARTMENT</b>			
<b>Residential Capital Cost Per Dwelling Unit</b>		<b>Residential PD Call Multiplier</b>	<b>Capital Cost Per Unit</b>
Single Detached		1.00	\$540
Townhouse Condo		0.81	\$437
Two to Three Family		0.99	\$533
Apartments 4+ Units		0.91	\$492
Manufactured Housing		0.44	\$235
<b>Non-Residential Capital Cost Per Square Foot</b>		<b>Non-Residential PD Call Multiplier</b>	<b>Capital Cost Per Sq. Ft.</b>
Retail, Including Restaurants, Clubs		1.39	\$0.44
Offices and Commercial Services		0.68	\$0.22
Industrial, Transportation, Whse, Communic.		0.36	\$0.12
Nursing Homes & Assisted Living		0.21	\$0.07
Other Institutional Uses		1.39	\$0.44
Average Non-Residential		1.00	\$0.32

**Table 8 – Credit Allowance per \$1000 Valuation**

<b>CREDIT ALLOWANCE FOR BASE YEAR SPACE DEFICIENCY POLICE DEPARTMENT</b>	
Police Station Base Year Deficiency (Sq. Ft.)	8,745
Cost Per Square Foot	\$300
Cost to Rectify Existing Space Deficiency	\$2,623,484
City Assessed Valuation	\$2,885,983,700
Deficiency Cost Per \$1000 Valuation	<b>\$0.91</b>

**Table 9 – Credit Allowance and Net Impact Fee Schedule  
Police Department**

<b>Credit Allowances for Base Year Deficiency and Net Impact Fee Assessment</b>	<b>Avg Assessed Value</b>	<b>Credit Allowance Per \$1000 Valuation: \$0.91</b>	<b>Impact Fee Schedule</b>
<b>Residential Uses</b>	<b>Assessment Per Dwelling Unit</b>	<b>Credit Per Unit</b>	<b>Per Dwelling Unit</b>
Single Detached	\$ 290,000	(\$264)	<b>\$276</b>
Townhouse	\$ 177,000	(\$161)	<b>\$276</b>
Two to Three Family	\$ 126,000	(\$115)	<b>\$418</b>
Apartments 4+ Units	\$ 93,000	(\$85)	<b>\$407</b>
Manufactured Housing	\$ 76,000	(\$69)	<b>\$166</b>
<b>Non-Residential Uses</b>	<b>Assessment Per Sq. Foot</b>	<b>Credit Per Sq. Foot</b>	<b>Fee Per Square Foot</b>
Retail, Including Restaurants, Clubs	\$ 78	(\$0.07)	<b>\$0.37</b>
Offices and Commercial Services	\$ 92	(\$0.08)	<b>\$0.14</b>
Industrial, Transportation, Whse, Communic.	\$ 42	(\$0.04)	<b>\$0.08</b>
Nursing Homes & Assisted Living	\$ 77	(\$0.07)	<b>\$0.00</b>
Other Institutional Uses	\$ 123	(\$0.11)	<b>\$0.33</b>
Average Non-Residential	\$ 71	(\$0.06)	<b>\$0.26</b>

## 5. Recommended Use of Impact Fee Funds

It is recommended that Police Department impact fees be used to reimburse the City for a portion of the costs to construct a new headquarters facility. Much of the cost of a new facility is attributable to pre-existing needs rather than to new development. Therefore the initial impact fee developed in this report is somewhat low after applying a credit allowance for existing deficiencies in space.

Impact fees may be used to offset the cost of debt service or to recoup investments already made in anticipation of growth. Therefore, the impact fees and interest on the fee account may be used to either reduce the overall cost of building construction at the front end, or to help pay debt service over time and reduce the property tax impact of such an expansion on existing taxpayers.

## E. FIRE & RESCUE DEPARTMENT IMPACT FEE

The Dover Fire & Rescue Department is constructing a new North End Fire Station of about 14,500 square feet that will complement and expand fire and rescue services city-wide. Existing stations include the old Central Fire Station and the South Station built in the 1960s. The construction of the new station will essentially double the total floor area of Fire & Rescue Department buildings serving in the City. The placement of stations and related equipment and staffing is essential to maintaining adequate response times. Growth in traffic has led to a gradual increase in response times.

While the new station is needed to accommodate new development, its costs are not entirely attributable to future needs. A new station has been cited as a need since for at least 20 years (the 1988 City Master Plan recommended that a new North End station be developed). Therefore a portion of the costs involved in funding the new building are attributable to past growth that has increased demand on Fire and EMS services. About 60% of the Fire & Rescue Department's total calls are for medical-related incidents.

The City of Dover Fire & Rescue needs and level of service goals are extensively documented in the its Strategic Plan 2006-2011 and the plans for phasing in of equipment deployment and staffing/operations among three stations are described in its 2008 Capital Improvements Program: North End Fire Station & Related Apparatus (December 6, 2006). Part of the rationale for the new station is that it has the potential to reduce response times to the north end of the City by three to four minutes.

For the purpose of impact fee assessment, it will be assumed here that the fire service should be viewed as a city-wide network providing coverage to all land uses from three locations. It is common for equipment and staffing to shift by location as demands change. It is necessary for one station to provide backup coverage to the others. Therefore, capital cost requirements are assumed to be distributed across the entire City rather than segmented into specific geographic areas.

### 1. Fire & Rescue Department Buildings

The existing Central Fire Station and the South Station have a combined floor area of about 14,500 square feet. The addition of the new North Station will provide an additional 14,500 square feet, essentially doubling the amount of building space available to fire and rescue services. The cost of the new fire station space is estimated at \$210 per square foot (including construction, architecture, and engineering and survey fees). This cost excludes land, which was donated by Liberty Mutual for the North End Fire Station site. In this model, the cost is limited to buildings only and does not reflect the cost of Fire & Rescue Department apparatus. A separate model is presented later in this report that includes an allowance for apparatus.

Upon completion of the North End Station, the City will have a total of 29,000 square feet of fire station space. Assuming that the total floor area is capable of serving a future City population of 35,000, total space would average 0.83 square feet per capita in the horizon year.

It is clear that additional station space has been needed for some years; therefore some existing deficiency in space must be assumed. At the ratio of 0.83 square feet per capita, the City's base year need may be estimated as an additional 9,282 square feet attributable to the 2007

population. The value of constructing this amount of space has been used to calculate the value of pre-existing deficiencies in space and related credit allowances to the fee payer.

## 2. Capital Investment in Apparatus, Gear & Capital Equipment

Maintenance of fire fighting capability is dependent on the periodic replacement and improvement of major capital equipment, principally major apparatus used for on-site fire fighting and emergency medical & rescue services. In some cases, the municipal investment in capital equipment exceeds the investment in the structures that house them.<sup>2</sup>

The Finance Department provided a fixed assets inventory by department including original acquisition costs and year of purchase. Using this schedule we estimated the current replacement cost of existing department gear, equipment and major apparatus assuming 5% annual (compound) rate of escalation in costs from the original acquisition year. In addition to the existing inventory, \$450,000 was added to account for the additional purchase of a new fire truck and related equipment to be housed at the North End Station. Using this method, the total estimated replacement cost of fire apparatus and capital equipment is about \$5 million. In total, the overall combined replacement cost of fire stations and major capital equipment of the department is estimated at just over \$11 million.

Since the capital investment in fire department vehicles and equipment is of benefit to new development, and because recoupment of the portion of capital costs is allowable under RSA 674:21, V, one of options for impact fee assessment shown in this report includes recovery of a portion of that investment. Thus, part of the impact fee might be used to fund new apparatus and equipment or applied to replacement of existing vehicles with improved equipment. The Fire Department intends to propose that the City create a capital reserve account funded at the level of \$50,000 per year to develop an ongoing fund for scheduled replacement of Fire Department vehicles. The capital reserve fund for replacement would not necessarily overlap with the portion of the impact fee based on original acquisition of the equipment, and it is possible that both sources of funds could be combined for equipment purchases.

## 3. Proportionate Allocation of Costs: Existing vs. New Development

For the purpose of impact fee assessment, it is assumed that the total capital facility investment (buildings plus major capital equipment) represents the cost of facilities sufficient to serve the horizon year population of 35,000. It is possible that additional equipment will become necessary over time; if so, additional planned equipment should be added to the inventory and estimate of investment in future updates to the fee.

The proportion of the total investment in related capital facilities required in the base year (2007) vs. the proportion serving new development is estimated based on existing and future call volume. The call volume is projected in the model using the overall number of Fire/EMS residential calls at the overall annual average of 0.22 per housing unit and non-residential calls at the rate of 0.19 per 1000 square feet of non-residential development.

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<sup>2</sup> The inclusion of major public safety apparatus or vehicles depends on whether they can be reasonably defined as “capital facilities” for the purpose of impact fee assessment. RSA 674:21, V defines impact fees to include “construction or improvement of capital facilities.” Definitions of “facility” vary – some definitions center on a building or place; others include space and equipment provided to fulfill a particular service or purpose. Impact fee systems in use in other states commonly include fire department apparatus as part of the capital basis of the fee.

Based on the average of base year and future year demands measured by calls for service, residential uses have been assumed to comprise 60% of the future demand on Fire and Rescue facilities, with commercial, institutional, and assisted living uses representing 40% of estimated service demand.

#### 4. Calculation of Fire & Rescue Department Impact Fee

A model for computing proportionate capital costs for the Dover Fire & Rescue Department per unit of new development is shown in Tables 10 and 11. While the proportionate demand on Police Department facilities was based on floor area per full time officer, the Fire & Rescue Department space needs are computed based on overall station space per capita plus a portion of total investment in major capital equipment needed for a horizon year population of 35,000.

The total capital investment allocated to new development in the model includes about \$1.53 million in Fire & Rescue Department buildings and about \$1.25 million in capital equipment value, or a total capital investment of about \$2.78 million attributable to new development (Table 10). In an alternative version, the cost of apparatus and capital equipment is excluded from the capital basis of the fee (see Table 14).

In the Table 10 model the portion of costs allocated to new development is divided by future population growth and projected nonresidential floor area, with about \$1.67 million in capital cost allocated to new residential development and about \$1.11 million to nonresidential uses. These allocations average to \$265 per capita for residential growth and \$0.28 per square foot for all new nonresidential development based on the growth projections.

When the cost of apparatus and capital equipment investment is excluded from the cost basis (Table 11), only about \$918,000 is allocated to new residential development and \$612,000 to future non-residential growth. The resulting capital costs represent \$146 per capita for residential development and \$0.15 per square foot for average non-residential uses.

As with the Police Department impact fee, the residential impact fee (with the exception of assisted living and apartments for the elderly) is calculated per-capita, and then multiplied by household size to derive a base residential impact fee per single family unit. The fee for a townhouse condominium is based on relative household size. For all other residential uses, the fee is proportionate to the relative Fire & Rescue Department call rate estimated for the type of residential unit.

For commercial, industrial, and other non-residential uses a relative call rate multiplier is used to generate an impact fee that is proportionate to the relative demands of these uses on Fire/EMS services relative to the overall average for the non-residential sector. The average cost per square foot is then multiplied by the relative call rate factors for various land uses to assign a proportionate impact fee per square foot for various subcategories of development.

Credit allowances are deducted from the proportionate capital cost per unit of new development for future debt service costs attributable to existing capital needs. A portion of the property taxes required to fund a portion of debt service on the new North Station has been computed as a credit allowance in Table 12 (computed at \$0.56 per thousand assessed value for 2007-08). Table 13 represents a credit allowance for a portion of the bonded debt for a new fire truck needed to make the North Station operational (computed at \$0.08 per thousand assessed value).

**Table 10 – Fire Department Capital Cost per Unit of Development**

<b>FIRE DEPARTMENT IMPACT FEE - DOVER, NH - 2008 - WITH APPARATUS &amp; CAPITAL EQUIPMENT INCLUDED</b>			
<b>Service Demand Factor</b>	<b>Base Year (2007 Est)</b>	<b>Future Service Population Assumed is</b>	<b>Change from Base Year</b>
<b>RESIDENTIAL SECTOR</b>			
Total Persons	28,703	35,000	6,297
Group Quarters Population	959	1,155	196
Household Population	27,744	33,845	6,101
Households (Occupied Units)	12,554	16,117	3,563
Average Household Size	2.21	2.10	-0.11
Total Housing Units @ 4% Overall Vacancy	13,077	16,788	3,711
<b>NON-RESIDENTIAL SECTOR</b>			
Employment (Total Including Government)	16,300	23,092	6,792
Non-Residential Floor Area Total	9,600,000	13,600,000	4,000,000
Non-Residential Uses: Floor Area Per Employee	589	589	
<b>CALLS FOR SERVICE ESTIMATE</b>			
Residential @ 0.22 Per Housing Unit	2,877	3,693	816
Non-Residential @ 0.19 per 1000 Sq. Ft.	1,824	2,584	760
Total Projected Annual	4,701	6,277	1,576
<b>Floor Area of Facilities</b>			
	<b>Existing</b>	<b>With New North Station</b>	<b>Change from Base Year</b>
Floor Area of Fire Stations (Sq. Ft.)	14,500	29,000	14,500
Station Space Required Per Capita	0.83	0.83	
Population Supportable by Facilities	17,500	35,000	
Space Deficiency of Existing Facilities Relative to 2007 Population	9,282		
<b>Demand on Capital Facilities</b>			
<b>Building Costs for Fire Stations</b>	<b>Existing Demand</b>	<b>Total Investment Including Expanded Facilities</b>	<b>Portion Allocated to New Development</b>
Facility Development Cost Per Sq. Ft. 2008 (Calls Basis)		\$210	
Attributed Building Costs - Fire Department	\$4,560,584	\$6,090,000	<b>\$1,529,416</b>
<b>Major Apparatus &amp; Vehicles - Replacement Cost</b>	<b>\$3,744,322</b>	<b>\$5,000,000</b>	<b>\$1,255,678</b>
<b>Total Capital Facility Investment - Fire Dept.</b>	<b>\$8,304,906</b>	<b>\$11,090,000</b>	<b>\$2,785,094</b>
<b>Public Safety Demand By Sector - Fire and EMS</b>			
	<b>Base Year</b>	<b>Future Year</b>	<b>Average</b>
Residential Share of Demand (calls basis)	61%	59%	<b>60%</b>
Non-Residential Share of Demand (calls basis)	39%	41%	<b>40%</b>
Cost Attributable to New Residential Development			\$1,671,057
Cost Attributable to New Non-Residential Development			\$1,114,037
<b>Residential Cost Per Capita</b>			\$265
<b>Non-Residential Cost Per Sq. Ft.</b>			\$0.28
<b>PUBLIC SAFETY FACILITY COSTS PER UNIT OF NEW DEVELOPMENT - FIRE DEPARTMENT</b>			
<b>Residential Capital Cost Per Dwelling Unit</b>		<b>Residential FD Call Multiplier</b>	<b>Capital Cost Impact Per Unit</b>
Single Detached		1.00	\$716
Townhouse		0.81	\$580
Two to Three Family		0.70	\$499
Apartments 4+ Units		0.61	\$437
Manufactured Housing		0.90	\$646
<b>Non-Residential Capital Cost Per Square Foot</b>		<b>Non-Residential FD Call Multiplier</b>	<b>Capital Cost Per Sq. Ft.</b>
Retail, Including Restaurants, Clubs		1.50	\$0.42
Offices and Commercial Services		0.64	\$0.18
Industrial, Transportation, Whse, Communic.		0.28	\$0.08
Nursing Homes & Assisted Living		2.35	\$0.65
Other Institutional Uses		1.40	\$0.39
Average Non-Residential		1.00	\$0.28

**Table 11 – Fire Station Capital Cost per Unit of New Development**

<b>FIRE DEPARTMENT IMPACT FEE - DOVER, NH - 2008 - BUILDINGS ONLY</b>			
<b>Service Demand Factor</b>	<b>Base Year (2007 Est)</b>	<b>Future Service Population Assumed is 35,000</b>	<b>Change from Base Year</b>
<b>RESIDENTIAL SECTOR</b>			
Total Persons	28,703	35,000	6,297
Group Quarters Population	959	1,155	196
Household Population	27,744	33,845	6,101
Households (Occupied Units)	12,554	16,117	3,563
Average Household Size	2.21	2.10	-0.11
Total Housing Units @ 4% Overall Vacancy	13,077	16,788	3,711
<b>NON-RESIDENTIAL SECTOR</b>			
Employment (Total Including Government)	16,300	23,092	6,792
Non-Residential Floor Area Total	9,600,000	13,600,000	4,000,000
Non-Residential Uses: Floor Area Per Employee	589	589	
<b>CALLS FOR SERVICE ESTIMATE</b>			
Residential @ 0.22 Per Housing Unit	2,877	3,693	816
Non-Residential @ 0.19 per 1000 Sq. Ft.	1,824	2,584	760
Total Projected Annual	4,701	6,277	1,576
<b>Floor Area of Facilities</b>			
	<b>Existing</b>	<b>With New North Station</b>	<b>Change from Base Year</b>
Floor Area of Fire Stations (Sq. Ft.)	14,500	29,000	14,500
Station Space Required Per Capita	0.83	0.83	
Population Supportable by Facilities	17,500	35,000	17,500
Space Deficiency of Existing Facilities Relative to 2007 Population			
	9,282		
<b>Building Costs for Fire Stations</b>			
	Demand on Capital Facilities		
	Existing Demand	Total Supported by Expanded Facilities	Portion Allocated to New Development
Facility Development Cost Per Sq. Ft. 2008 (Calls Basis)		\$210	\$210
Attributed Building Costs - Fire Department	\$4,560,584	\$6,090,000	\$1,529,416
<b>Other Capital Facilities of Department Capital Investment Major Apparatus</b>			
Not Included in This Model			
<b>Total Capital Facility Investment - Fire Dept.</b>	<b>\$4,560,584</b>	<b>\$6,090,000</b>	<b>\$1,529,416</b>
<b>Public Safety Demand By Sector - Fire and EMS</b>			
	Base Year	Future Year	Average
Residential Share of Demand (calls basis)	61%	59%	60%
Non-Residential Share of Demand (calls basis)	39%	41%	40%
Cost Attributable to New Residential Development			\$917,650
Cost Attributable to New Non-Residential Development			\$611,766
<b>Residential Cost Per Capita</b>			\$146
<b>Non-Residential Cost Per Sq. Ft.</b>			\$0.15
<b>PUBLIC SAFETY FACILITY COSTS PER UNIT OF NEW DEVELOPMENT - FIRE DEPARTMENT</b>			
<b>Residential Capital Cost Per Dwelling Unit</b>		Residential FD Call Multiplier	Capital Cost Impact Per Unit
Single Detached		1.00	\$393
Townhouse		0.81	\$319
Two to Three Family		0.70	\$275
Apartments 4+ Units		0.61	\$240
Manufactured Housing		0.90	\$356
<b>Non-Residential Capital Cost Per Square Foot</b>		Non-Residential FD Call Multiplier	Capital Cost Per Sq. Ft.
Retail, Including Restaurants, Clubs		1.50	\$0.23
Offices and Commercial Services		0.81	\$0.12
Industrial, Transportation, Whse, Communic.		0.28	\$0.04
Nursing Homes & Assisted Living		2.35	\$0.36
Other Institutional Uses		1.40	\$0.21
Average Non-Residential		1.00	\$0.15

**Table 13**  
**Credit Allowance for Fire & Rescue Department**  
**Space Deficiency in 2007**

<b>CREDIT CALCULATION - NORTH END FIRE STATION SCHEDULED DEBT SERVICE</b>			
Fiscal Year	Total Principal Payment	Total Interest Payment	Total Payment
2009	\$150,000	\$124,619	\$274,619
2010	\$150,000	\$118,244	\$268,244
2011	\$150,000	\$111,869	\$261,869
2012	\$150,000	\$105,494	\$255,494
2013	\$150,000	\$99,119	\$249,119
2014	\$150,000	\$92,744	\$242,744
2015	\$150,000	\$86,369	\$236,369
2016	\$150,000	\$79,994	\$229,994
2017	\$150,000	\$73,619	\$223,619
2018	\$145,000	\$67,244	\$212,244
2019	\$145,000	\$61,081	\$206,081
2020	\$145,000	\$54,738	\$199,738
2021	\$145,000	\$48,031	\$193,031
2022	\$145,000	\$41,325	\$186,325
2023	\$145,000	\$34,438	\$179,438
2024	\$145,000	\$27,550	\$172,550
2025	\$145,000	\$20,663	\$165,663
2026	\$145,000	\$13,775	\$158,775
2027	\$145,000	\$6,888	\$151,888
PV of Future Payments (2009-2027) @ 6% discount			\$2,520,592
Percent of Capacity Required as of 2007			64%
Credited Amount			\$1,613,527
Net Local Assessed Valuation			\$2,885,983,700
Credit per thousand assessed value			\$0.56

**Table 14**  
**Credit Allowance for**  
**New Fire Truck Added at North Station**

<b>CREDIT CALCULATION - ADDITIONAL FIRE TRUCK FOR NORTH STATION</b>			
Fiscal Year	Total Principal Payment	Total Interest Payment	Total Payment
2009	\$30,000	\$18,263	\$48,263
2010	\$30,000	\$16,988	\$46,988
2011	\$30,000	\$15,713	\$45,713
2012	\$30,000	\$14,438	\$44,438
2013	\$30,000	\$13,163	\$43,163
2014	\$30,000	\$11,888	\$41,888
2015	\$30,000	\$10,613	\$40,613
2016	\$30,000	\$9,338	\$39,338
2017	\$30,000	\$8,063	\$38,063
2018	\$30,000	\$6,788	\$36,788
2019	\$30,000	\$5,513	\$35,513
2020	\$30,000	\$4,200	\$34,200
2021	\$30,000	\$2,813	\$32,813
2022	\$30,000	\$1,425	\$31,425
PV of Future Payments (2009-2027) @ 6% discount			\$382,460
Percent of Capacity Required as of 2007			64%
Credited Amount			\$244,827
Net Local Assessed Valuation			\$2,885,983,700
Credit per thousand assessed value			\$0.08



The combined credit allowance from Tables 13 and 14 (a total of \$0.64 per thousand valuation) is deducted from the total capital cost per unit computed for buildings plus apparatus and capital equipment to arrive at the net impact fees shown below in Table 15.

**Table 15 – Fire Department Impact Fee A  
Including Apparatus and Capital Equipment**

Credit Allowances for Base Year Deficiency and Net Impact Fee Assessment	Avg Assessed Value	Credit Allowance Per \$1000 Valuation: <b>\$0.64</b>	Impact Fee Schedule
<b>Residential Uses</b>	Assessment Per Dwelling Unit	Credit Per Unit	Per Dwelling Unit
Single Detached	\$290,000	(\$186)	\$530
Townhouse	\$177,000	(\$113)	\$467
Two to Three Family	\$126,000	(\$81)	\$418
Apartments 4+ Units	\$93,000	(\$60)	\$377
Manufactured Housing	\$76,000	(\$49)	\$597
<b>Non-Residential Uses</b>	Assessment Per Sq. Foot	Credit Per Sq. Foot	Fee Per Square Foot
Retail, Including Restaurants, Clubs	\$ 78	(\$0.05)	<b>\$0.37</b>
Offices and Commercial Services	\$ 92	(\$0.06)	<b>\$0.12</b>
Industrial, Transportation, Whse, Communic.	\$ 42	(\$0.03)	<b>\$0.05</b>
Nursing Homes & Assisted Living	\$ 77	(\$0.05)	<b>\$0.60</b>
Other Institutional Uses	\$ 123	(\$0.08)	<b>\$0.31</b>
Average Non-Residential	\$ 71	(\$0.05)	<b>\$0.23</b>

An alternative, lower impact fee computation is shown in Table 16 in which the cost of vehicles and capital equipment has been excluded from both the capital cost basis and from the credit allowances.

**Table 16: Fire Department Impact Fee B  
Excluding Fire Apparatus and Capital Equipment**

Credit Allowances for Base Year Deficiency and Net Impact Fee Assessment	Avg Assessed Value	Credit Allowance Per \$1000 Valuation: <b>\$0.56</b>	Impact Fee Schedule
<b>Residential Uses</b>	Assessment Per Dwelling Unit	Credit Per Unit	Per Dwelling Unit
Single Detached	\$290,000	(\$162)	\$231
Townhouse	\$177,000	(\$99)	\$220
Two to Three Family	\$126,000	(\$71)	\$204
Apartments 4+ Units	\$93,000	(\$52)	\$188
Manufactured Housing	\$76,000	(\$43)	\$313
<b>Non-Residential Uses</b>	Assessment Per Sq. Foot	Credit Per Sq. Foot	Fee Per Square Foot
Retail, Including Restaurants, Clubs	\$ 78	(\$0.04)	<b>\$0.19</b>
Offices and Commercial Services	\$ 92	(\$0.05)	<b>\$0.07</b>
Industrial, Transportation, Whse, Communic.	\$ 42	(\$0.02)	<b>\$0.02</b>
Nursing Homes & Assisted Living	\$ 77	(\$0.04)	<b>\$0.32</b>
Other Institutional Uses	\$ 123	(\$0.07)	<b>\$0.14</b>
Average Non-Residential	\$ 71	(\$0.04)	<b>\$0.11</b>

**F. SUMMARY OF PUBLIC SAFETY IMPACT FEE ASSESSMENT SCHEDULES**

The dollar amounts shown in the Fire and Police Department impact fee models are summarized in the alternative impact fee schedules A and B in Tables 17 and 18 below. Impact fees for residential uses are shown per dwelling unit. The fees for non-residential uses are computed on a per square foot basis.

In practice a single public safety impact fee may be assessed to new development. However, it is recommended that the fees collected be placed in two separate capital facility amounts: one for Police Department and one for Fire & Rescue Department facilities. In this way, appropriate capital allocations may be made from the respective impact fee funds to pay for the respective facilities for which they were assessed. Impact fee funds may also be used to offset a portion of the cost of new equipment or improved replacement equipment that enhances the response time or capacity of either department to serve new development.

**Table 17: Public Safety Impact Fees – Alternative Schedule A**

<b>PUBLIC SAFETY IMPACT FEE ASSESSMENT SCHEDULE INCLUDING VALUE OF FIRE APPARATUS &amp; CAPITAL EQUIPMENT</b>			
<b>Use Category</b>	<b>Public Safety Impact Fees Per Dwelling Unit</b>		
<b>General Residential Uses</b>	Police	Fire	<b>Total Public Safety</b>
Single Detached	\$276	\$530	<b>\$806</b>
Townhouse	\$276	\$467	<b>\$743</b>
Two to Three Family	\$418	\$418	<b>\$836</b>
Apartments 4+ Units	\$407	\$377	<b>\$784</b>
Manufactured Housing	\$166	\$597	<b>\$764</b>
<b>Other Uses Based on Assessment Per Square Foot</b>	<b>Public Safety Impact Fees Per Square Foot</b>		
	Police	Fire	<b>Total Public Safety</b>
Retail, Including Restaurants, Clubs	\$0.37	\$0.37	<b>\$0.74</b>
Offices and Commercial Services	\$0.14	\$0.12	<b>\$0.26</b>
Industrial, Transp, Whse, Communications	\$0.08	\$0.05	<b>\$0.13</b>
Nursing Homes & Assisted Living	\$0.00	\$0.60	<b>\$0.60</b>
Other Institutional Uses	\$0.33	\$0.31	<b>\$0.64</b>
Average Non-Residential or Other	\$0.26	\$0.23	<b>\$0.49</b>

**Table 18: Public Safety Impact Fees – Alternative Schedule B**

<b>PUBLIC SAFETY IMPACT FEE ASSESSMENT SCHEDULE - POLICE AND FIRE STATION BUILDINGS ONLY</b>			
<b>Use Category</b>	<b>Public Safety Impact Fees Per Dwelling Unit</b>		
<b>General Residential Uses</b>	Police	Fire	<b>Total Public Safety</b>
Single Detached	\$276	\$231	<b>\$507</b>
Townhouse	\$276	\$220	<b>\$496</b>
Two to Three Family	\$418	\$204	<b>\$622</b>
Apartments 4+ Units	\$407	\$188	<b>\$595</b>
Manufactured Housing	\$166	\$313	<b>\$479</b>
<b>Other Uses Based on Assessment Per Square Foot</b>	<b>Public Safety Impact Fees Per Square Foot</b>		
	Police	Fire	<b>Total Public Safety</b>
Retail, Including Restaurants, Clubs	\$0.37	\$0.19	<b>\$0.56</b>
Offices and Commercial Services	\$0.14	\$0.07	<b>\$0.21</b>
Industrial, Transp, Whse, Communications	\$0.08	\$0.02	<b>\$0.10</b>
Nursing Homes & Assisted Living	\$0.00	\$0.32	<b>\$0.32</b>
Other Institutional Uses	\$0.33	\$0.14	<b>\$0.47</b>
Average Non-Residential	\$0.26	\$0.11	<b>\$0.37</b>

The models for impact fee assessment should always reflect, rather than define, capital improvement planning for related facilities and services. The impact fee assessment models are intended to reasonably represent the level of capital investment that the City will support, with a proportionate allocation of that cost to new development. The models should not be used to limit the way in which future capital improvement needs are defined for public safety facilities. However, as these needs and plans change over time, the impact fee assessment should be modified accordingly. Once adopted, impact fee schedules should be updated periodically to assure that the fee basis keeps pace with current capital costs.

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