HURRICANE CITY
UTAH

Mayor Nanette Billings

City Manager Kaden DeMille

City Council

Joseph Prete
Dave Sanders
Doug Heideman
David Hirschi
Kevin Thomas

Hurricane City Council Meeting
Agenda

February 17, 2022
3:00 PM
City Council Chambers 147 N 870 W, Hurricane

Notice is hereby given that the City Council will hold a Regular Meeting in the City Council Chambers 147 N 870 W, Hurricane, UT. Meeting Link on Webex Meeting number: 2630 456 5376 Meeting password: HCcouncil Join from a video or application Dial 26304565376@cityofhurricane.webex.com. You can also dial 173.243.2.68 and enter your meeting number. Join by phone +1-415-655-0001 US Toll Access code:26304565376.
A silent roll call will be taken, followed by the Pledge of Allegiance and prayer by invitation.
THOSE WISHING TO SPEAK DURING PUBLIC FORUM MUST SIGN IN WITH THE RECORDER BY 6:00 P.M.

3:00 PM PID Meeting

5:00 p.m. Pre-meeting

6:00 p.m. - Call to Order

Prayer

Historical Thought

Pledge of Allegiance

Public Forum – Comments from Public

Please Note: In order to be considerate of everyone attending the meeting and to more closely follow the published agenda, public comments will be limited to 2 minutes per person per item. A spokesperson representing a group to summarize their concerns will be allowed 5 minutes to speak. Repetitious commentary will not be allowed. If you need additional time, please request agenda time with Cindy Beteag in writing before 5:00 p.m. the Wednesday one week before the Council meeting.

OLD BUSINESS

1. Consideration and possible approval of a **Franchise Agreement between Hurricane City and Infowest**
2. Consideration and possible approval of a **reduction in park and road impact fees for an apartment complex located at approximately 6129 W 100 South** H-4-2-4-3211 - Kyle Arbizu
3. Consideration and possible **approval of Modified Agreement between Hurricane City and Stratton Brothers Partnership**-Fay Reber

4. Consideration and possible approval of a **Resolution declaring parents are the primary stakeholders in their child's life**-Nanette Billings

NEW BUSINESS

1. **Public Hearing** to take comments on the following:
   a. A sensitive land application for Mountain View Estates, a 37 lot subdivision, located at 1300 W 650 S
   b. A sensitive land application for Mesa Cove, a 91 lot residential subdivision, located at 1117 W 600 N

2. Consideration and possible approval for a **preliminary plat and sensitive land application for Mountain View Estates Preliminary Plat, a 37 lot subdivision, located at 1300 W 650 S.** Craig Engel, RAC Inc Applicant. Marc Brown Agent.
3. Consideration and possible approval on a **preliminary plat and sensitive land application for Mesa Cove, a 91 lot residential subdivision, located at 1117 W 600 N**. GVS Holdings LLC Applicant. Dwain Schallenberger Agent
4. Discussion and possible approval of an **Equestrian Park grand opening celebration**-Rob Goulding
5. Consideration and possible approval of a **Certificate of Sale and Restrictive Covenant for purchase and acceptance of property from SITLA**.
6. Consideration and possible decision on the **flood modeling approach for Gould Wash**.
7. Consideration and possible approval of **a contract award for a slurry seal project.**
8. Consideration and possible approval of a **contract award for a chip seal project**.
9. Consideration and possible approval of a **grading permit for Dennett Construction south of Quail Creek Industrial**- Doug Dennett
10. Consideration and possible approval of **a grading permit for Scholzen Products-** Bruce Ballard
11. Discussion and possible approval of **event parking at Sand Hollow on the Washington County Water Conservancy District's propert**y - Dan Staheli
12. Consideration and possible approval of a **Zone Change Amendment request located north of 3000 S and west of 2100 W to amend the zoning boundary on 160 acres already approved as R1-10 PDO, planned development overlay, and M-1 zone, light industrial, from 26.7 acres of M-1 to 31.83 acres of M-1 with the remainder remaining R1-10 PDO**, Parcel number: H-3373-NP. Molly's View LLC Applicant. Richard Wedig Agent.
13. Consideration and possible approval for a **preliminary plat for Gateway at Sand Hollow Commercial, a 6 lot commercial subdivision**, located between SR-9 and Sand Hollow Road. Western MTG and Realty Co Applicant. Brent Moser Agent.
14. Consideration and possible approval of an **amended final plat for Pioneer Estates Lot 5** located at 252 S 1430 W. Pat Stone Applicant

15. Consideration and possible approval of a **preliminary plat for Sand Hollow Mancaves** located at the northeast corner of Sand Hollow Road and Abbey Road. Dixie Man Caves LLC Applicant. Jason Miller Agent
16. Consideration and possible approval for a **preliminary plat for Elim Estates**, a 135 lot subdivision located at approximately 1400 S 4300 W. Bright Ideas REI Applicant. Adam Allen Agent.
17. Discussion and possible decision on **renewing the contract with Granicus or hiring a new position for licensing and reviewing vacation rentals** - Nanette Billings
18. Discussion regarding a **water conservation ordinance**
19. Discussion and possible approval of a **part-time position to transcribe meeting minutes**-Nanette Billings
20. Discussion on **short term rental ordinance-**Nanette Billings
21. Discussion on the i**nfrastructure needed in Hurricane City**- Nanette Billings
22. Closed Session

Adjournment

I hereby certify that the above notice was posted to the city website, (www.cityofhurricane.com) posted to the state public notice website, and at the following locations:
1. City office – 147 North 870 West, Hurricane, UT
2. The Post Office – 1075 West 100 North, Hurricane, UT
3. The library – 36 South 300 West, Hurricane, UT

_____ for the City Recorder

TELECOMMUNICATIONS FRANCHISE AGREEMENT
BETWEEN THE CITY OF HURRICANE UTAH
AND INFOWEST, INC

THIS TELECOMMUNICATIONS FRANCHISE AGREEMENT (this "Agreement") is entered into this _____ day of _____, 2022 (the "Effective Date") by and between **Hurricane City**, a municipal corporation and political subdivision of the State of Utah, with principal offices at **147 N 870 W, Hurricane, Utah 84737** (the "City") and **InfoWest Inc**, a telecommunications corporation with its principle offices at **435 E Tabernacle St, St. George, Utah 84770** (the "Provider"). The CITY and the PROVIDER may sometimes be referred to herein collectively as the "Parties".

RECITALS

WHEREAS, the Provider desires to provide telecommunications services within the City and, in connection therewith, to establish a telecommunications network in, under, along, over and across present and future rights-of-way of the City which consists of telecommunication lines, cables, and all other necessary appurtenances (the "System"); and

WHEREAS, after extensive consideration, the City, in exercising its management of public rights-of-way, has determined that it is in the best interest of the public to provide the Provider a non-exclusive franchise agreement to operate a telecommunications network within the City; and

WHEREAS, the City and the Provider have negotiated an arrangement whereby the Provider may provide its services within the City pursuant to the terms and conditions outlined in the Agreement and all applicable City ordinances, and subject to the further reasonable regulation under the City's police and other regulatory power.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants and agreements of the Parties contained herein, and for other good and valuable consideration, the receipt and legal sufficiency of which is hereby acknowledged, the City and the Provider hereby agree as follows:

ARTICLE I
FRANCHISE AGREEMENT

1.1 Agreement. Upon approval by the City Council and execution by both Parties, this Agreement shall be deemed to constitute a binding contract by and between the City and the Provider.

1.2 Grant of Franchise. The City, through this Agreement, hereby grants to the Provider the non-exclusive right, privilege, and franchise to install, repair, maintain, remove and replace its telecommunications system on, in, under, over and across the present and future public rights-of-way in the City in order to provide services.

1.3 Licenses. The Provider hereby acknowledges that it has, or will, obtained any and all necessary approvals, licenses or permits required by federal, state and local law to provide telecommunication services consistent with the provisions of this Agreement.

1.4 Financial Capability. The Provider hereby warrants that it has the financial capability to construct, maintain, and operate a telecommunications network and to otherwise comply with the provisions of this Agreement.

1.5 Relationship of Parties. Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the Parties, and neither Party is authorized to nor shall either Party act toward third persons or the public in a manner that would indicate any such relationship.

1.6 Pole Attachments. This franchise grants to the Provider the right to use City poles, conduit, or other facilities. Provider must work with the city for approval of such use.

ARTICLE II
FRANCHISE FEE

2.1 Franchise Fee.

a. This agreement is subject to the Utah Municipal Telecommunications License Tax Act Title 10, Chapter 1, Sections 401 through 410, Utah Code Annotated, 1953 as amended, enrolled at the time this agreement is signed or as may be amended. Provider shall pay the City's municipal telecommunications license tax at the rate of **3.5%** of the gross receipts from telecommunications service attributed to the municipality. Said tax shall be paid through the Utah State Tax Commission.

b. All payments shall be made to the Utah State Tax Commission, whose current address is as follows:

Utah State Tax Commission
210 North 1950 West
Salt Lake City, Utah 84134

c. Payments are due to the Utah State Tax Commission within forty-five (45) days after receipt by the Provider. Interest shall accrue on late payments at the rate of **1 ½%** per month until paid. Compliance by the Provider with the terms and provisions of the Municipal Telecommunications Tax Act, and any rules and regulations promulgated thereunder, shall satisfy all requirements of this Agreement with respect to the calculation and payment of the Franchise Fee.

d. The City and the Provider hereby agree to negotiate in good faith any amendments to this Agreement as shall be necessary to accommodate changes in the Franchise Fee including payment provisions; provided, however, such new or changed provisions shall substantially confirm with the provisions contained in any permits held by other similarly situated companies.

e. City shall have access to any and all of Provider's business records upon reasonable notice for the purpose of auditing compliance with the above tax provisions.

f. The Provider hereby represents to the City that one of the purposes for entering into this Agreement is to obtain authority to build a network within the City to provide telecommunication services to customers within the City.

2.2 Equal Treatment. The City hereby agrees that if any service forming part of the base for calculating the Franchise Fee under this Agreement is, or becomes, subject to competition from a third party, the City will either impose and collect from any such third party a fee or tax on gross revenues from such competing service in the same percentage identified herein, plus the percentage specified as a utility revenue tax or license fee in the then-current ordinances of the City, or to waive collection of the fee(s) provided for herein that are subject to such competition.

ARTICLE III
TERM AND RENEWAL

3.1 Term and Renewal. The franchise granted to the Provider herein shall be for a period of twenty (20) years commencing on the Effective Date first set forth above in this Agreement unless this Agreement is terminated sooner as provided herein. At the end of the initial twenty (20) year term of this Agreement, the franchise granted herein may be renewed by the City and the Provider upon the same terms and conditions as contained in this Agreement for an additional ten (10) year term, by the Provider providing to the City's representative designated herein written notice of the Provider' s intent to renew not less than ninety (90) calendar days before the expiration of the initial franchise term.

3.2 Rights of Provider upon Expiration or Revocation. Upon expiration of this Agreement, whether by lapse of time, by agreement between the Parties, or by revocation or forfeiture, the Provider shall have the right to remove from the City' s rights-of-way any and all of its system; however, in such an event, it shall be the duty of the Provider, immediately upon such removal, to restore the rights-of-way for which such system is removed to as good a condition as the same was before the removal was affected.

3.3 Rights of City upon Expiration or Revocation. Upon expiration of the term of this Agreement, forfeiture, or lawful revocation of this Agreement, and if no renewal or extension thereof is agreed upon, the Provider may, at the discretion of the City Council, be required, in part or entirely, to remove all its wires, poles, fixtures, and other facilities or equipment installed or used in the enjoyment of the franchise. Alternatively, the removal or sale of such facilities and equipment may be directed, limited, or conditioned by the City by agreement between the Parties or through means of other lawful municipal power or right. The City may continue to invoke any or all provisions of this franchise Agreement against the Provider or any successor entity enjoying de facto franchise privileges after expiration or revocation. The City and the Provider shall work together to take all other actions deemed by the City as necessary and proper to accommodate the transition to any successor as may be in the best interest of the City or its inhabitants and the Provider.

ARTICLE IV
USE AND RELOCATION OF FACILITIES IN THE PUBLIC RIGHTS-OF-WAY

4.1 Franchise Rights to Use the Public Rights-of-Way. The Provider shall have the right to use the public rights-of-way within the City to construct and maintain its network subject to the conditions set forth in this Agreement; provided, however, that the Provider shall not, pursuant to this Agreement, place any new poles, mains, cables, structures, pipes, conduits, or

wires on, in, under, along, over, across or within any right-of-way, City park, pleasure ground, or other recreational area currently existing or developed in the future without a permit from the City. Nothing contained herein shall preclude the City from granting a revocable permit for such purpose. In addition, the Provider shall have the right to utilize any easements across private property granted to the City for utility purposes; provided, however, that the Provider obtain the City' s prior written permission in each case and the documents granting any such easements to the City to authorize such use. The Provider specifically understands and acknowledges that certain City easements and rights-of-way may be prescriptive in nature, and that nothing in this Agreement extends permission to use the easement or right-of-way beyond the extent that the City may have acquired, and such easements and rights-of-way may be subject to third party prior or after-acquired interests. The Provider is cautioned to examine each individual easement and right-of-way and the legal arrangement between the City and adjacent property owners. The City assumes no duty or obligation to defend any interest in any easement or right of-way, and the Provider remains solely responsible to make any arrangements required as a result of other persons claiming an interest in the City easement or right-of-way.

4.2 Provider Duty to Relocate; Subordination to City Use. Whenever the City, for any lawful public purpose, shall require the relocation or reinstallation of any property of the Provider or the Provider' s successors in any of the streets, alleys, rights-of-way, or public property of the City, it shall be the obligation of the Provider, upon notice of such requirement and written demand made of the Provider, and within a reasonable time thereof, but not less than thirty (30) calendar days, to remove and relocate or reinstall such facilities as may be reasonably necessary to meet the requirements of the City. Such relocation, removal, or reinstallation by the Provider shall be at no cost to the City; provided, however, that the Provider and its successors and assigns may maintain and operate such facilities, with the necessary appurtenances, in the new location or locations without additional payment, if the new location is a public place. Notwithstanding the foregoing, the duty of the Provider to install or relocate its lines underground shall be subject to the provisions of Article IV, Paragraph 4.4 below. Any money and all rights to reimbursement from the State of Utah or the federal government to which the Provider may be entitled for work done by the Provider pursuant to this Paragraph shall be the property of the Provider. The City shall assign or otherwise transfer to the Provider all rights the City may have to recover costs for such work performed by the Provider and shall reasonably cooperate with the Provider' s efforts to obtain reimbursement. In the event the City has required the Provider to relocate its facilities to accommodate a private third party, the City shall use good faith to require such third party to pay the costs of any such relocation. Notwithstanding anything to the contrary herein, the Provider' s use of the right-of-way shall in all matters be subordinate to the City' s use of the right-of-way for any public purpose. The City and the Provider shall coordinate the placement of their respective facilities and improvements in a manner which minimizes adverse impact on each other. Where placement is not otherwise regulated, the

facilities shall be placed with adequate clearance from such public improvements so as not to impact or be impacted by such public improvements.

4.3 Duty to Obtain Approval to Move Provider Property; Emergencies. Except as otherwise provided herein, the City, without the prior written approval of the Provider, shall not intentionally alter, remove, relocate, or otherwise interfere with any Provider facilities. Approval by Provider will not be unreasonable withheld. However, if it becomes necessary (in the judgment of the Mayor, City Council, City Engineer, Fire Chief, Police Chief, or their designees) to cut, move, remove, or damage any of the cables, appliances, or other fixtures of the Provider because of a fire, emergency, disaster, or other imminent threat thereof, these acts may be done without prior written approval of the Provider, and the repairs thereby rendered necessary shall be made by the Provider, without charge to the City. Should the City take actions pursuant to this section, the Provider shall indemnify, defend, and hold the City harmless from and against any and all claims, demands, liens, or liability for (a) loss or damage to the Provider' s property; and/or (b) interruptions of telecommunications services provided by the use of or through the Provider' s property (including telecommunications services provided by the Provider to the Provider' s customers), whether such claims, demands, liens, or liability arise from or are brought by the Provider, its insurers, the Provider' s customers, or third parties. If, however, the City requests emergency funding reimbursement from federal, state or other governmental sources, the City shall include in its request the costs incurred by the Provider to repair facilities damaged by the City in responding to the emergency. Any funds received by the City on behalf of the Provider shall be paid to the Provider within thirty (30) business days.

4.4 Location to Minimize Interference. All lines, poles, towers, pipes, conduits, equipment, property, structures, and assets of the Provider shall be located so as to minimize interference with the use of streets, alleys, rights-of-way, and open property by others and shall reasonably avoid interference with the rights of owners of property that abuts any of said streets, alleys, rights-of-way, or public property.

4.5 Repair of Damage. If, during the course of work on its facilities, the Provider causes damage to or alters any street, alley, right-of-way, sidewalk, utility, public improvement, or other public property, the Provider, at its own cost and expense and in a manner approved by the City, shall promptly and completely restore such street, alley, right-of-way, sidewalk, utility, public improvement, or other public property to its previous condition in accordance with applicable City ordinances, policies and regulations relating to repair work of similar character to the reasonable satisfaction of the City. Except in cases of emergency, the Provider, prior to commencing work in the public way, street or public property, shall make application for a permit to perform such work from the City Engineer or other department or division designated by the City. Provider shall also be required to obtain a road break permit from the Public Works

Department. Such permit shall not be unreasonably withheld. The Provider shall abide by all reasonable regulations and requirements of the City for such work.

4.6 Guarantee of Repairs. For a period of eighteen (18) months following the completion of the repair work performed pursuant to Paragraph 4.5 above, the provider shall maintain, repair, and keep in good condition those portions of said streets, alleys, rights-of-way, or public property restored, repaired or replaced to the satisfaction of the City. Provider will comply with all applicable City Ordinances related to the posting of bonds and guarantee of repairs.

4.7 Safety Standards. It shall be the Provider' s responsibility to ensure that the Provider' s work, while in progress, be properly protected at all times with suitable barricades, flags, lights, flares, or other devices as are reasonably required by applicable safety regulations or standards imposed by law including, but not limited to, signage in conformance with the Federal and State of Utah manuals on Uniform Traffic Control Devices.

4.8 City Supervision. The Provider shall construct, operate, and maintain its network within the City in strict compliance with all laws, ordinances, rules, and regulations of the City and any other agency having jurisdiction over the operations of the Provider. The Provider' s network and all parts thereof within the City shall be subject to the right of periodic inspection by the City; provided, however, that such inspection shall be conducted at reasonable times and upon reasonable notice to the Provider.

4.9 Provider's Duty to Remove Network.

a. The Provider shall promptly remove, at its own cost and expense, from any public property within the City, all or any part of the network when one or more of the following conditions occur:

i. This franchise grant is terminated or revoked pursuant to notice as provided herein; or

ii. This franchise grant expires pursuant to the terms of this Agreement.

b. The removal of any or all of the network by the Provider that requires trenching or other opening of the City's streets shall be done only after the Provider complies with applicable City Ordinances related to opening City Streets.

c. The Provider shall receive notice in writing from the City setting forth one (1) or more of the occurrences specified in Subsection 4.9 (a) above and shall have ninety (90) calendar days from the date upon which said notice is received to remove or abandon such facilities.

4.10 Notice of Closure of Streets. Except in cases of emergency, the Provider shall notify the City not less than three (3) business days in advance of any construction, reconstruction, repair, or relocation of facilities which would require any street closure which reduces traffic flow to less than two (2) lanes of moving traffic. Except in the event of an emergency, as reasonably determined by the Provider, no such closure shall take place without prior authorization from the City. In addition, all work performed in the traveled way or which in any way impacts vehicular or pedestrian traffic shall be properly signed, barricaded, and otherwise protected as required by Paragraph 4.7 above, and the City shall receive no less than 48 hours' notice of said closure.

4.11 Agreement to Abide by Construction and Technical Requirements. In addition to the provisions of this Article 4, the Provider expressly agrees to comply with all other provisions of City governing the construction and technical requirements of the Provider' s network and system.

ARTICLE V
POLICE POWERS

5.1 Police Powers. The City hereby expressly reserves, and the Provider hereby expressly recognizes, the City's right and duty to adopt, from time to time, in addition to provisions herein contained, such ordinances and rules and regulations as the City may deem necessary in the exercise of its police power for the protection of the health, safety and welfare of its citizens and their properties.

ARTICLE VI
SEVERABILITY

6.1 Severability. If any section, sentence, paragraph, term or provision of this Agreement is for any reason determined to be or rendered illegal, invalid or superseded by other lawful authority, including any state or federal, legislative, regulatory or administrative authority having jurisdiction thereof, or is determined to be unconstitutional, illegal or invalid by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such determination shall have no effect on the validity of any other section, sentence, paragraph, term or provision, all of which shall remain in full force and effect for the term of this Agreement or any renewal or renewals thereof. Provided that if the invalidated portion is considered a material consideration for entering into this Agreement, the Parties shall negotiate, in good faith, an amendment to this Agreement. As used herein, "material consideration" for the City is its ability to collect the Franchise Fee during the term of this

Agreement and its ability to manage its rights-of-way in a manner similar to that provided in this Agreement and the City's excavation ordinance. For the Provider, "material consideration" is its ability to use the rights-of-way for telecommunication purposes in a manner similar to that provided in this Agreement and the City's excavation ordinance.

ARTICLE VII
EARLY TERMINATION; REVOCATION OF FRANCHISE; OTHER REMEDIES

7.1 Grounds for Termination. The City may terminate or revoke this Agreement and all rights and privileges herein provided for any of the following reasons:

a. The Provider fails to make timely payments of the Franchise Fee as required under Article II of this Agreement and does not correct such failure within sixty (60) calendar days after written notice by the City of such failure;

b. The Provider, by act or omission, materially violates a material duty herein set forth in any particular within the Provider' s control, and with respect to which redress is not otherwise herein provided. In such event, the City, acting by or through its City Council, may determine, after a hearing, that such failure is of a material nature, and thereupon, after written notice giving the Provider notice of such determination, the Provider, within sixty (60) calendar days of such notice, shall commence efforts to remedy the conditions identified in the notice and shall have ninety (90) calendar days from the date it receives notice to remedy the conditions. After the expiration of such ninety (90) day period and failure to correct such conditions, the City may declare the franchise forfeited and this Agreement terminated, and thereupon, the Provider shall have no further rights or authority hereunder; provided, however, that any such declaration of forfeiture and termination shall be subject to judicial review as provided by law, and provided further, that in the event such failure is of such nature that it cannot be reasonably corrected within the ninety (90) day time period provided above, the City shall provide additional time for the reasonable correction of such alleged failure if the reason for the non-compliance was not the intentional or negligent act or omission of the Provider;

c. The Provider becomes insolvent, unable or unwilling to pay its debts; is adjudged bankrupt; or all or part of its facilities should be should under an instrument to secure a debt and is not redeemed by the Provider within sixty (60) calendar days; or

d. In furtherance of the Provider' s policy or through acts or omissions done within the scope and course of employment, a director or officer of the Provider knowingly engages in conductor makes a material misrepresentation with or to the City that is fraudulent or in violation of a felony criminal statute of the State of Utah.

ARTICLE VIII
NOTICES

8.1 City Designee and Address. The Mayor of the City or his/her designee(s) shall serve as the City' s representative regarding administration of this Agreement. Unless otherwise specified herein, all notices from the Provider to the City pursuant to or concerning this Agreement shall be delivered to the City' s representative at **147 N 870 W, Hurricane, Utah 84737**, or other such officer and address as the City may designate by written notice to the Provider.

8.2 Provider Designee and Address. Unless otherwise specified herein, all notices from the City to the Provider pursuant to or concerning this Agreement shall be delivered to **435 E Tabernacle St, St. George Utah, 84770;** with a copy to General Counsel at the same address.

8.3 Failure of Designee. The failure or omission of the City' s or the Provider' s representative to act shall not constitute any waiver or estoppel by the City or the Provider.

ARTICLE IX
INSURANCE AND INDEMNIFICATION

9.1 No Liability. Except as otherwise specifically provided herein, the City shall in no way be liable or responsible for any loss or damage to property, including financial or business loss (whether direct, indirect, or consequential), or any injury to or death of any person(s) that may occur in the construction, operation, or maintenance by the Provider of any of its lines and appurtenances hereunder, except to the extent of the City' s own negligence or willful misconduct. Notwithstanding any other provision of this Agreement, in no event shall either Party be liable for any consequential, special, incidental, punitive, indirect or similar damages.

9.2 Provider Indemnification of City. The Provider shall indemnify and, at the City' s option, defend and hold the City, its elected and appointed officers, agents, and employees thereof, harmless from and against any and all claims, suits, actions, liability and judgments for damages or otherwise harmless from and against claims, demands, liens, and all liability or damage of whatsoever kind on account of or arising from the exercise by the Provider of the related rights, or from the operations of the Provider within the City, and shall pay the costs of defense plus reasonable attorneys' fees. Said indemnification shall include, but not be limited to, the Provider' s negligent acts or omissions pursuant to its use of the rights and privileges of this Agreement including construction, operation and maintenance of telecommunications lines and

appurtenances, whether or not any such use, act or omission complained of is authorized, allowed, or prohibited by this Agreement.

9.3 Notice of Indemnification. The Provider shall give prompt written notice to the City of any claim, demand or lien that may result in a lawsuit against the City. The City shall (i) give prompt written notice to the Provider of any claim, demand or lien with respect to which the City seeks indemnification hereunder; and (ii) unless, in the City' s sole judgment, a conflict of interest may exist between the City and the Provider with respect to such claim, demand or lien, permit the Provider to assume the defense of such claim, demand or lien with counsel satisfactory to the City. If such defense is not assumed by the Provider, the Provider shall not be subject to any liability for any settlement made without its consent. Notwithstanding any provision hereof to the contrary, the Provider shall not be obligated to indemnify, defend or hold the City harmless to the extent any claim, demand or lien arises out of or in connection with a breach by the City of any obligation under this Agreement or any negligent or otherwise tortious act or failure to act of the City or any of its elected or appointed officers, agents, or employees.

9.4 Insurance. The Provider shall file a Certificate of Insurance with the City prior to commencing any action pursuant to this Agreement, and shall at all times thereafter maintain in full force and effect, at its sole expense, an acceptably policy or policies which have one (1) of the three (3) highest or best rating from the Alfred M. Best Company of liability insurance, including comprehensive liability insurance. The policy(ies) shall name the City as an additional insured and in their capacity as such, also the City' s elected and appointed officers, agents, and employees. Policies of insurance shall be in the minimum single limit amount of three million dollars ($2,000,000) per occurrence. The insurer(s) shall be authorized to write the required insurance in the State of Utah. The policy(ies) of insurance shall be maintained by the Provider in full force and effect during the full term of this franchise Agreement. Each policy of insurance shall contain a statement on its face that the insurer(s) will not cancel the policy or fail to renew the policy, whether for nonpayment of premium or otherwise, and whether at the request of the Provider or for other reasons, except after thirty (30) calendar days' advance written notice mailed by the insurer(s) to the City, and that such notice shall be transmitted postage prepaid.

9.5 City's Right to Intervene. In any suit in which the City is named as a party and which seeks indemnification from the Provider, and in which the City, in its own reasonable discretion, believes that a conflict of interest with the Provider exists, the City shall have the right to provide its own defense in connection with the same. In such event, in addition to being reimbursed for any judgment that may be rendered against the City which is subject to indemnification hereunder, together with all court costs incurred therein, the Provider shall reimburse the City for all reasonable attorneys' fees including those employed by the City in such case (s), as well as all reasonable expenses incurred by the City by reason of undertaking the defense of such suit(s),

whether such suit(s) are successfully defended, settled, compromised, or fully adjudicated against the City.

9.6 No Creation of Private Cause of Action. The provisions set forth herein are not intended to create liability for the benefit of third parties, but is solely for the benefit of the Provider and the City. In the event any claim is made against the City that falls under these indemnity provisions and a court of competent jurisdiction should adjudge, by final decree, that the City is liable therefore, the Provider shall indemnify and hold the City harmless of and from any such judgment or liability, including any court costs, expenses, and attorneys' fees incurred by the City in defense thereof. Nothing herein shall be deemed to prevent the Parties indemnified and held harmless herein from participating in the defense of any litigation by their own counsel at their own expense. Such participation shall not, under any circumstances, relieve the Provider from its duty of defense against liability or paying any judgment entered against such party.

9.7 Performance Bonds and/or Cash Bonds and other Surety. To ensure completion of the Provider' s performance of its obligations hereunder, the Provider shall furnish to the City a performance bond and/or cash bond from an insurer or guarantor that is acceptable to the City prior to commencing any action pursuant to this Agreement. At the City's sole discretion, and based on the project, a performance bond and/or cash bond may be required.

ARTICLE X
REMEDIES

10.1 Duty to Perform. The Provider and the City hereby agree to take all reasonable and necessary actions to assure that the terms of this Agreement are performed.

10.2 Remedies at Law. In the event the Provider or the City fail to fulfill any of their respective obligations under this Agreement, the City or the Provider, whichever the case may be, shall have a breach of contract claim and remedy against the other in addition to any other remedy provided by law, provided that no remedy that would have the effect of amending the specific provisions of this Agreement shall become effective without such action that would be necessary to formally amend the Agreement.

10.3 Third Party Beneficiaries. The benefits and protections provided by this Agreement shall inure solely to the benefit of the City and the Provider. This Agreement shall not be deemed to create any right in any person who is not a Party hereto and shall not be construed in any respect to be a contract in whole or in part for the benefit of any third party (other than the permitted successors and assigns of a Party hereto.)

10.4 Reserved Rights. Nothing contained herein shall be deemed to preclude the Provider from pursuing any legal or equitable rights or remedies it may have to challenge the action of the City.

10.5 Force Majeure. The Provider shall not be held in default or non-compliance with the provisions of this Agreement, nor suffer any enforcement or penalty relating thereto, where such non-compliance or alleged defaults are caused by strikes, acts of God, power outages, or other events reasonably beyond the Provider' s ability to control; however, the Provider shall not be relieved of any of its obligations to comply promptly with any provision of this Agreement by reason of any failure of the City to enforce such prompt compliance.

10.6 No Waiver. Nothing herein shall be construed as to imply that the City waives any right, payment, or performance based on future legislation where said legislation impairs this Agreement in violation of the United States or Utah Constitutions.

ARTICLE XI
TRANSFER OF FRANCHISE

11.1 Written Approval Required to Transfer. The Provider shall not transfer or assign any rights under this Agreement or the franchise granted herein to another entity unless the City first gives its approval in writing, which approval shall not be unreasonably withheld or delayed; provided, however, that the Provider may fully assign the franchise contained herein to its corporate parent, a corporate affiliate or a subsidiary, and also that inclusion of the franchise as property subject to the liens of the Provider' s mortgages or other security interests shall not constitute a transfer or assignment. A lease of the Provider' s system to a third party shall not constitute a transfer or assignment of the franchise for purposes of this Agreement. Any attempted assignment or transfer without such prior written consent shall constitute a default of the franchise and this Agreement. In the event of such a default, the City shall proceed according to the procedures set forth in this Agreement and any applicable state, federal or local law.

11.2 Procedure for Obtaining Approval for Transfer. At least ninety (90) calendar days before a proposed assignment or transfer of the Provider' s franchise is scheduled to become effective, the Provider shall petition in writing for the City Councils written consent for such a proposed assignment or transfer. The City shall not unreasonably withhold its consent to such an assignment or transfer. However, in making such a determination, the City Council may consider the following:

a. Experience of the proposed assignee or transferee (including conducting an investigation of the proposed assignee or transferee' s service record in other communities);

b. Qualifications of the proposed assignee or transferee;

c. Legal integrity of the proposed assignee or transferee;

d. Financial ability and stability of the proposed assignee or transferee;

e. The corporate connection, if any, between the Provider and the proposed assignee or transferee; and

f. Any other aspect of the proposed assignee's or transferee's background which could affect the health, safety and welfare of the citizenry of the City as it relates to the operation of a telecommunication network.

11.3 Certification of Assignee. Before an assignment or transfer is approved by the City Council, the proposed assignee or transferee shall execute an affidavit acknowledging that it has read, understands, and intends to abide by this franchise Agreement.

11.4 Effect of Approval. In the event of any approved assignment or transfer, the assignee or transferee shall assume all obligations and liabilities of the Provider, except that an assignment or transfer shall not relieve the Provider of its liabilities under this franchise Agreement until the assignment actually takes place or unless specifically relieved by federal, state, or local law, or unless specifically relieved by the City Council at the time an assignment or transfer is approved.

11.5 Transfer upon Revocation by the City. The Provider and the City hereby agree that in the event of a lawful revocation of this franchise, at the Provider's request, which shall be made in the Provider's sole discretion, the Provider shall be given a reasonable opportunity to effectuate a transfer of its network to a qualified third party. The City further hereby agrees that during such a period of time, it shall authorize the Provider to operate pursuant to the terms of its prior franchise Agreement; however, in no event shall such authorization exceed a period greater than six (6) months from the effective date of such revocation. If, at the end of that six (6) month period, the Provider is unsuccessful in procuring a qualified transferee or assignee of its network which is reasonably acceptable to the City, the Provider and the City may avail themselves of any rights they may have pursuant to federal or state law; it being further agreed that the Provider's continued operation of its network during the six (6) month period shall not be deemed to be a waiver or extinguishment of any rights of either the City or the Provider. Notwithstanding anything to the contrary set forth herein, neither the City nor the Provider shall be required to violate federal or state law.

11.6 Abandonment of Facilities by the Provider. The Provider, with the consent of the City, may abandon any underground facilities in place, subject to the requirements of the City. In such an event, the abandoned network shall become the property of the City, and the Provider shall have no further responsibilities or obligations concerning those facilities.

ARTICLE XII
GENERAL PROVISIONS

12.1 Binding Agreement. The Parties hereby represent that (i) when executed by their respective parties, this Agreement shall constitute all the legal and binding obligations of the Parties pertaining to the subject matter contained herein; and (ii) that each Party has complied with all relevant statutes, ordinances, resolutions, by-laws, and other legal requirements applicable to their operation in entering into this Agreement. This Agreement shall be binding upon the heirs and successors, administrators and assigns of each of the Parties.

12.2 Governing Law. This Agreement shall be construed, interpreted and governed in accordance with the laws of the State of Utah. All disputes resulting in legal action shall be governed by the laws of the State of Utah. Jurisdiction shall be vested in the District Courts in and for the State of Utah. Venue is vested in the 5th Judicial District Court in and for Washington County, State of Utah or in any other successor district court of competent jurisdiction.

12.3 Interpretation of Agreement. The invalidity of any portion of this Agreement shall not prevent the remainder of this agreement from being carried into effect. Whenever the context of any provision shall require it, the singular number shall be held to include the plural number, and vice versa, and the use of any gender shall include any other and all genders. The paragraph and section headings in this Agreement are for convenience only and do not constitute a part of the provisions hereof.

12.4 Entire Agreement and Amendments. This Agreement and all attachments hereto constitute and represent the entire agreement and understanding between the Parties hereto and replaces any previous agreement, understanding or negotiation between the Parties with respect to the subject matter hereof, and may be modified or amended, supplemented, or changed only by the written agreement of the Parties, including the formal approval of the City Council. No oral modifications or amendments shall be effective.

IN WITNESS WHEREOF, the parties have hereunto set their hands the day and year set forth above.

HURRICANE CITY, UTAH

_____

John Bramall, MAYOR
Hurricane City Corporation

Date: _____

ATTEST:

_____
, CITY RECORDER

STATE OF UTAH)
: Ss.
COUNTY OF WASHINGTON)

This is to certify that on the ____ day of _____, 2022, before me, the undersigned, a Notary Public, in and for the State of Utah, duly commissioned and sworn as such, personally appeared John Bramall, known to me to be the Mayor of Hurricane City Corporation, and _____ _____known to me to be the City Recorder of Hurricane City Corporation, and acknowledged to me that he the said John Bramall and She the said _____executed the foregoing instrument as a free and voluntary act and deed of said corporation, for the uses and purposes therein, and on oath state that they were authorized to execute said instrument, and that the seal affixed is the corporate seal of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year hereinabove written.

_____
NOTARY PUBLIC

_____

By: _____

Titles: _____

Date: _____

STATE OF _____)
: Ss.
COUNTY OF _____)

On this ___ day of _____, 2022, _____ personally appeared before me _____, and duly acknowledged to me that he/she signed the above and foregoing document.

_____
NOTARY PUBLIC

Title 13 - FRANCHISES

CHAPTER 1. - VIDEO SERVICES FRANCHISE

Sec. 13-1-1. - Title.

This chapter shall be known as the Video Services Franchise Ordinance.

Sec. 13-1-2. - Definitions.

For purposes of this chapter, the following terms, phrases, words and their derivatives shall have the meanings set forth in this section, unless the context clearly indicates that another meaning is intended. Words used in the present tense include the future tense, words in the single number include the plural number, words in the plural number include the singular. The words "shall" and "will" are mandatory, and "may" is permissive. Words not defined shall have the same meanings as the terms used in title 7, chapters 8 and 11 of this Code, and if not defined there, their common and ordinary meaning.

Basic service means any service tier that includes the retransmission of local television broadcast signals.

Cable act means Title VI of the Communications Act of 1934, as amended, 47 USC section 151 et seq., and all other provisions of the Cable Communications Policy Act of 1984, codified at 47 USC section 521 et seq., and the Cable Television Consumer Protection and Competition Act of 1992 as codified at 47 USC section 543 et seq.

Cable service means:

A. The one-way transmission to subscribers of:
    1. Video programming; or
    2. Other programming service; and
B. Subscriber interaction, if any, which is required for the selection or use of such video programming or other programming service.

Franchise agreement means a contract entered into in accordance with the provisions of this chapter between the City and a franchisee that sets forth the terms and conditions under which a franchise to provide video services will be exercised.

Grantee means any person, firm or corporation granted a franchise by the City.

Gross revenues means:

A. All revenues derived by a grantee, or an affiliate of grantee in connection with its provision of video services in the City via a video service system including, but not limited to:
    1. Revenue from any video service which generates revenue of any type whatsoever and which is offered to the subscribers by means of a video services system, including, but not limited to, leased access fees and advertising revenues.
    2. Revenue from all charges for the installation, connection and reinstatement of equipment necessary for the utilization of the video services.
    3. Grantee's pro rata portion of any revenues derived from any other person or source and attributable to

grantee's provision of video services in the service area via a video services system, to which the City is authorized to apply a franchise fee under the cable act, state or local law as it may exist from time to time during the term of the franchise agreement.

B. For the purpose of calculating franchise fees, the following shall not be included in the definition of gross revenue:

1. State or local taxes, such as sales taxes, imposed upon an end user where the grantee acts as a collection agent for the state or local taxing authority.
2. Bad debt, to the extent it is not collected.
3. Affiliate revenues are not counted as gross revenues of the grantee where that would result in a double count of the same revenues for purpose of calculating the franchise fee owed.

Service area means the geographic area in which a grantee is authorized to provide video services.

Subscriber means any person or entity lawfully receiving video service from grantee or an affiliate of grantee.

Transfer means any transaction subject to review under section 13-1-17 of this chapter.

Video service system means a communications system that is designed to be used, or is used to provide video services.

Sec. 13-1-3. - Application for franchise agreement.

A. *Information required.* All initial franchise applications to construct, operate or maintain any communications system for the purpose of providing video services, or to provide video services via a communications system in this City shall be filed with the City Recorder-Clerk, and each such application shall set forth, contain or be accompanied by the following in addition to the information required by title 7, chapter 8 of this Code:

1. The name, address, and telephone number of the applicant.
2. A detailed statement of the corporate or other business entity organization of the applicant, including, but not limited to, the following:
   a. The names, residence addresses and business addresses of all officers, directors and partners or business associates of the applicant.
   b. The names, residence addresses and business addresses of all persons and entities having controlling, or being entitled to have or control five percent or more of the ownership of the applicant, and the respective ownership share of each such person or entity.
   c. The names and addresses of any parent of the applicant to the ultimate parent; and the names and addresses of each entity responsible in whole or in part for management or operation of the applicant or the video service system that will be used by applicant, along with a description of the nature of the responsibilities of such entity.
   d. A description of the previous experience of the applicant in providing video services and constructing systems used to provide video services; and an identification of all communities in the state where applicant, or any affiliate, provides video services.
   e. Information regarding the legal, financial, technical and character qualifications of the applicant.
   f. Whether grantee is filing the application as a cable operator of a cable system within the meaning of the cable act.
3. A detailed description of the proposed plan of operation of the applicant, which shall include, but not be

limited to, the following:

a. A map or maps of a scale not less than one inch equaling one hundred feet (1" = 100') showing the precise geographic area for which applicant seeks a franchise agreement.

b. Plans showing any existing location of the communications system that will be used to provide video services; and, unless the communications system is fully constructed except for drops to subscribers, a plan for system construction, containing at least the information required by subsection 13-1-6C of this chapter.

4. A copy of the form of any agreement, undertaking or other instrument proposed to be entered into between the applicant and any subscriber.

B. *Additional information.* The City may request such additional information as it deems necessary to determine whether or not the application should be granted. The failure to file a complete application, or to provide additional information requests, is grounds for rejecting an application.

C. *Time for review.* An initial application for a franchise shall be reviewed promptly by the City. The City may grant or deny the application, or grant it subject to conditions. To the extent that the federal communications commission requires the City to take a final action on a completed application by a date certain, a completed application for a franchise shall be deemed denied by final action of the City if the City has not adopted an ordinance granting a franchise to the applicant prior to the deadline, unless the applicable deadline has been lawfully extended.

D. *Time for denial.* Unless the FCC alters the deadlines, the date on which the application shall be deemed denied for purposes of subsection C of this section shall be:

1. Ninety days after the filing of a completed application by an entity for an initial cable franchise that already has a communications system in the rights of way;

2. One hundred eighty days after the filing of a completed application by any other entity.

3. Provided that, where an application is submitted in connection with a transfer, the deadlines in section 13-1-17 of this chapter shall apply.

E. *Renewals.* Franchise renewals shall be according to applicable state and federal law. The City and grantee by mutual consent, may enter into renewal negotiations at any time during the term of the franchise.

Sec. 13-1-4. - Grant and acceptance of franchise.

A. *Acceptance required.* No franchise agreement shall become effective for any purpose unless and until an ordinance is passed by the City approving the franchise agreement. No franchise shall be effective until accepted unconditionally by the grantee. Grantee shall be deemed to have unconditionally accepted a franchise by signing a franchise agreement countersigned by the City.

B. *Subject to general ordinance provisions.* Any franchise agreement granted is hereby made subject to the general ordinance provisions of this chapter and title 7, chapters 4 and 8 of this Code.

C. *Right of police power.* Grantee's rights are subject to the police powers of the City to adopt and enforce ordinances necessary to the health, safety and welfare of the public. Grantee shall comply with all laws and ordinances enacted by the City pursuant to that power. No franchise shall be interpreted in a manner that limits a grantee's obligations under this section.

Sec. 13-1-5. - Additional conditions of street occupancy.

A. *City use of pole and conduits in rights-of-way.* Subject to any applicable state or federal regulations or tariffs, the Cit after giving written notice, have the right, without cost, to make use of any poles or conduits controlled or maintain for use of the grantee, that are located in any public way. Such use by the City shall not interfere with current or fut by the grantee.

B. *Use by others of poles.* In cases where access to a grantee's poles are not regulated by the Public Service Commission or by the Federal Communications Commission:

1. If another public utility is denied the privilege of utilizing poles or wire holding structures constructed and installed by the grantee within streets; and
2. The City finds that such use would enhance the public convenience and would not unduly interfere with the grantee's operations.

The City may require the parties to enter into a mutually agreeable joint pole use agreement with respect to the then unused capacity until such time as the poles and wire holding structures are needed by the owner thereof, so as to avoid proliferation of poles and wire holding structures, and may set the terms and conditions for access if the parties cannot agree, in a manner consistent with the manner in which rates are set for poles under 47 USC section 224, or under state law.

Sec. 13-1-6. - Extension of service; duty to serve.

A. *Minimum service area.* Except as provided in this section, the City shall not approve any franchise that provides for a service area smaller than the City, as it existed as of the effective date of the franchise. The City may grant a franchise that permits a grantee to serve areas annexed after the effective date of the franchise. The foregoing does not apply:

1. To an open video system;
2. To a video service provider offering services via an infrastructure system, where infrastructure provider agrees to terms and conditions for system build out, or agrees to make payments to support build out of systems used by others to provide video services, that the City accepts in satisfaction of obligations of video service providers who use such infrastructure system; or
3. Where an applicant shows that the service area is economically infeasible; that granting a franchise for a smaller area will not adversely affect the development of competition throughout the City; and that the proposed service area is such that granting a franchise for that area will not unfairly disadvantage any franchised video service provider.

B. *Time to provide service.* A video service provider must complete construction of its system within a reasonable time, so that it passes by all dwelling units within its service area, which time shall be specified in the franchise and subject to the density requirements in subsection D of this section.

C. *Sequence of construction.* As a condition of receiving a franchise, each video service provider must submit a plan for the sequence of construction that ensures it does not discriminate against residents of the City based on income. The plan must show the timing of construction by geographic area and the schedule for completion of construction by geographic area. A schedule for completion of construction may be tied to the success of the applicant in the marketplace. In determining whether the plan is acceptable, the City may take into account:

1. The amount of time required to build out the video service system first franchised to serve the City; and
2. The amount of construction required to serve the service area; and

3. The time required to provide the applicant reasonable opportunities to recover its investment.

D. *Density requirements.* A grantee may, but is not required to serve any portion of its service area where the density is less than five dwelling units per linear quarter mile unless the potential subscriber agrees to pay extension charges as provided in this section. In extending service, the following requirements shall be met:

1. In any portion of the service area where the density is five dwelling units or more per linear quarter mile, a grantee shall provide video service to any person that requests it at its normal connection fee; provided, that grantee is able to reasonably obtain all easements or permissions, if any, which are necessary to extend service relating thereto. Provided that, where the distance from the curb to the demarcation point on the potential subscriber's premises is greater than 150 feet, a grantee may charge an additional fee to recover the costs of extending the system the additional distance.
2. In areas with less than five residential units per linear quarter mile, a grantee shall offer a cost sharing arrangement with residents desiring video service wherein each will bear their proportionate share of construction costs. For example, if there are four dwelling units per linear quarter mile grantee must extend service if the potential subscribers are willing to pay one-fifth of the cost of extending the system to pass by the dwelling units, and the grantee must bear four-fifths of the construction cost. Should additional residents actually subscribe to video service in areas where subscribers have already paid a proportionate share under the extension cost sharing formula, subscribers who have previously paid a proportionate share shall be reimbursed pro rata for their contribution or proportional share thereof. In such case, the pro rata shares shall be recalculated and each new subscriber shall pay the new pro rata share, and all subscribers who previously paid a proportionate share shall receive pro rata refunds. However, one year after completion of a project, subscribers who have paid a share of line extension costs shall no longer be eligible for refunds, and the amounts paid in construction costs thereafter shall be credited to the plant account of grantee.
3. The subscriber who must pay additional amounts for extended connections or for distribution cable construction, as provided in subsection D2 of this section, shall be given a written estimate of the additional amount payable by them prior to their subscription, and they shall in no event be required to pay more than five percent over this estimate.

Sec. 13-1-7. - Community access services.

A. *Requirement to provide access channels.*

1. For any franchise effective after the effective date hereof, each grantee shall at a minimum provide the greater of:
   a. Two activated channels for public, educational, or government use; or
   b. The greatest number of channels being provided under any video service franchise for the City.
2. For any franchise effective after the effective date hereof, the City may require activated additional channels for public, educational or government use as necessary to satisfy the needs and interests of the community as determined at the time an applicant seeks a renewal, extension or initial issuance of a franchise. Each franchise shall require the grantee to provide additional channels based on usage.
3. For any franchise granted prior to the effective date hereof, a grantee shall provide access channels and support for access channels as required by its franchise, and by this section as the same was in effect on January 1, 2009, until it ceases to operate under the terms and conditions of that franchise.
4. The City may designate itself or another entity to manage the channels, and may designate the purposes for

which the channels may be used, consistent with applicable law.

5. The City may establish rules and procedures for the use of the channels, or authorize its designee to establish rules and procedures for the use of the channels.

B. *Channel assignments.* Access channel assignments shall be made by a grantee in consultation with the City and shall be uniform on that grantee's system throughout the City. Unless it is technically infeasible to do so, a grantee shall place PEG channels at the same channel locations as are being used by a video service system in the City designated by the City. Each grantee's system shall, insofar as technically and economically feasible, be compatible with and able to tie into all other franchised video service systems providing video services within and adjacent to the City so as to enable each system to carry and cablecast the public, educational and governmental access programming of the other systems. The City may require a grantee to interconnect its system with other franchised video service providers.

C. *Minimum requirements for channels.* Access channels shall be carried on the basic service tier, and shall be available to every subscriber without any additional charges for equipment beyond the charges for equipment the subscriber pays to receive the commercial services to which the subscriber subscribes. Access channels shall be of the same quality, have the same features and functionality as the primary broadcast signals carried by the grantee. The channels shall be selectable from the same menus used to access other commercial programming, shall be as prominently featured as other channels, and if the information is provided to grantee, shall contain the same type of information as is carried with respect to commercial programming. Each grantee must pass through the full PEG signal to subscribers, including information equivalent to that carried in the vertical blanking interval.

D. *Extension of system.* Each grantee is responsible for extending its system to points from which it can pick up the access channels at no cost to the City or to the persons programming the channels, which extension may be direct, through an interconnection or by other reasonable technical means.

Sec. 13-1-8. - Rates.

A. The City expressly reserves the right to regulate the rates which a grantee charges its subscribers for basic service and for such other services and equipment as the City is now, or may hereafter be, permitted to regulate consistent with applicable law. A grantee shall not deny, delay, interrupt or terminate cable service or the use of cable television system facilities to subscribers because of an action by the City related to its regulation of the rates; provided, however, that nothing herein shall be construed to limit a grantee's right to seek judicial review of such action. The City may from time to time adopt rules and procedures for the regulation of rates.

B. Each video service provider shall provide notice of rate changes to the City and to subscribers as if it were a cable operator subject to the notice rules established by the Federal Communications Commission.

Sec. 13-1-9. - Customer service standards.

A. *Minimum standards.* Each grantee under this chapter shall satisfy the customer service standards established by the FCC pursuant to 47 USC section 552 as if it were a cable operator, and such additional or stricter customer service or consumer protection requirements as are included in this Code, or as the City may adopt from time to time by resolution, or as may apply under applicable law.

B. *Waiver of standards.* Customer service standards and reporting requirements may be waived by the City Manager where:

1. A grantee shows the standard as applied to it is too burdensome; and
2. The grantee proposes an alternative standard that the City Manager determines will reasonably protect subscribers in light of the customer service record of the grantee requesting the waiver.
3. The waiver shall expire in 90 days unless a longer period is approved by the City Council. The City Council may revoke a waiver at any time, upon 60 days' notice.

C. *Opportunity for comment.* After the effective date hereof, before adopting any additional video service specific customer service standards, the City shall provide grantees an opportunity to comment on the proposed standards before they are adopted.

D. *Billing practices.*

1. *Failure to pay.* The due date for a bill may be no earlier than 15 days after a bill is mailed. No penalty or late fee may be assessed until five days after the due date. A payment is made as of the earlier of the date it is received, or the date a payment by mail is postmarked.
2. *Return of deposits.* If the grantee collects a deposit or advance charge on any service or equipment requested by a subscriber, the grantee shall provide such service or equipment within 30 days of the collection of the deposit or charge or it shall refund such deposit or charge by mail postmarked within seven working days thereafter. Nothing in this section shall be construed to limit the grantee's liability for damages because of its failure to provide the service for which the deposit or charge was made.
3. *Pro rata refunds.* In the event that a subscriber terminates service prior to the end of a prepaid period, the pro rata portion of any prepaid subscriber fee which represents payment for services which are no longer to be rendered shall be refunded promptly, but in no case more than 30 days after receipt of the request of termination.
4. *Security deposits.* Security deposits may not be levied on a discriminatory basis. A grantee shall not charge an equipment security deposit greater than the equipment's actual cost to the grantee. Any equipment security deposit collected by the grantee shall be returned to the subscriber no later than the earlier of:
   a. Twelve months after its collection, if the deposit was collected from a person that is still a subscriber; or
   b. Within 30 days of return of such equipment undamaged, with allowance for reasonable wear and tear, and payment of any outstanding balance due and payable for lease of the equipment.

E. *Time for installation completion.*

1. Subject to subsection E2 of this section, standard subscriber installations shall be completed within seven business days (unless the subscriber requests a later date). A standard installation is an installation where distance from the curb to the demarcation point on the potential subscriber's premises is 150 feet or less. During normal operating conditions, this standard will be met 95 percent of the time, measured on a quarterly basis.
2. Upgrades or reconnections of service by a grantee shall be performed and completed within seven working days of a subscriber requesting such upgrade or reconnection. During normal operating conditions, this standard will be met 95 percent of the time, measured on a quarterly basis.
3. For nonstandard installations, or where a system extension is required, work must be completed promptly, and no later than 60 days after the extension request, unless the City grants an extension of the time. The City shall not unreasonably deny a request for an extension where proper engineering, planning and construction require more time.

F. *Missing appointments.* If the grantee fails to meet an appointment, the grantee shall in the case of an installation, reconnection or upgrade, at a minimum, waive all charges for installation, reconnection or upgrade applicable to th customer whose appointment was missed. If the grantee fails to meet a service or repair appointment, the grantee a minimum, waive all repair charges, if any are applicable to the customer whose appointment was missed, and cre account of the customer whose appointment was missed an amount of no less than $20.00, in addition to automati providing credits for the period during which service was lost.

G. *Credit for outage, interruption.* A grantee shall provide a subscriber with credit for a signal or service interruption exceeding four hours in duration. The credits provided herein need be given only upon request made by a subscriber. The request may be made at the time a subscriber calls to report a signal or service interruption, whether or not the four hours has elapsed at the time the call is made; and may be requested up to 60 days after the signal or service interruption occurs. A "signal or service interruption" refers to the loss of sound or picture on any channel, or the significant deterioration of the same on any channel.

H. *Records maintained.* Grantee shall maintain a record or "log" of signal or service interruptions; and customer complaints describing the date and nature of the interruption or complaint, and the date and nature of the action taken by grantee. These records shall be kept at grantee's local office for a period of three years. Each grantee shall collect information, and shall maintain records to show its performance with respect to all applicable customer service standards.

Sec. 13-1-10. - Disconnections; voluntary and involuntary.

A. *Involuntary disconnection.* Before an involuntary disconnection of a subscriber's service takes place, the following must occur:

1. The subscriber shall in fact be delinquent in payment at least 45 days after the posting of the bill before notice of disconnection may be given;
2. Notice shall be by separate written advice of impending disconnection that may be mailed or personally served upon the subscriber before disconnection;
3. If notice is given by personal service, at least five days must elapse before disconnection after the subscriber has either signed for or refused to accept personally served written notice of impending disconnection;
4. If notice is given by mail, at least ten days shall be elapsed after the date of mailing such notice before disconnection.

B. *Notice of disconnection.* The written notice of disconnection must expressly and clearly state the amount that is owed by the subscriber to the grantee, the minimum amount required to be paid to avoid disconnection, and the date and place where such payment must be made. Disconnection of service and retrieval of equipment must occur both on a normal service day and within normal business hours of grantee. Receipt of a "bad check" from a subscriber, in response to a written notice of disconnection, does not constitute payment, and the affected grantee need not give the subscriber further notice prior to disconnection of service. A grantee may add a reasonable collection charge to a subscriber's bill.

Sec. 13-1-11. - Resolution of complaints.

A. Each grantee shall maintain a comprehensive complaint resolution policy that is in writing, and such policy shall be provided to persons at the time of initial subscription and whenever amended; it shall be available, upon request, to any person.

B. A grantee may not disconnect a subscriber if the subscriber files a complaint with a grantee prior to the scheduled d disconnection, disputing charges owed, until the complaint is addressed in writing by the grantee.

C. The City may adopt procedures for complaint resolution if it determines that the grantee's complaint resolution process is unfair to subscribers, or if a grantee fails to comply with its obligations under this section.

Sec. 13-1-12. - Books and records.

A. *Right to access.* The City shall have the right to review and make copies of books and records relevant to its enforcement of a franchise agreement and applicable law. Books and records shall be produced at a convenient location in the City, or if books and records cannot be produced there, at a mutually agreeable location. To the extent the Utah Government Records and Management Act, Utah Code Annotated title 63G, chapter 2 (the "act"), and other applicable law permits, the City may agree in a franchise agreement that information contained within the books and records of grantee provided to the City shall be kept confidential by the City, and may agree to provide grantee reasonable notice of any request received by the City for disclosure of any books and records requested by grantee to remain confidential, so that the grantee may take appropriate action to protect confidential information from disclosure.

B. *Prompt response required.* Grantee shall promptly respond to requests for information from the City related to a franchise agreement or grantee's compliance with applicable law. Provided that, nothing herein shall require a grantee to disclose personally identifiable information it is prohibited from disclosing under privacy laws; and provided that, a grantee shall redact any such information if it is contained in information requested by the City.

C. *Audit.* In addition to its rights under subsection A of this section, for the purpose of verifying the correct amount of the franchise fee, the books and records of the provider pertaining thereto shall be open to inspection or audit by duly authorized representatives of the City at all reasonable times, upon giving reasonable notice of the intention to inspect or audit the books and records; provided, that the City shall not audit the books and records of the provider more often than annually. The provider shall agree to reimburse the City the reasonable costs of an audit if the audit discloses that the provider has paid 95 percent or less of the compensation due the City for the period of such audit. In the event the accounting rendered to the city by the provider herein is found to be incorrect, then payment shall be made on the corrected amount within 30 calendar days of written notice, it being agreed that the City may accept any amount offered by the provider, but the acceptance thereof by the City shall not be deemed a settlement of such item if the amount is in dispute or is later found to be incorrect.

Sec. 13-1-13. - Reporting requirements.

A. Each grantee shall prepare reports as the City may reasonably request to monitor compliance with the terms hereof and of the grantee's franchise.

B. By January 31 of each year, each grantee shall provide the City with a detailed statement of revenues derived in connection with the provision of video services in the City, sworn as accurate by an officer of the grantee, which statement shall identify:

1. The number of subscribers, by category of service;
2. Service revenues, by category of service;
3. Equipment revenues, by category of equipment;
4. Other revenues, identifying the source of the revenues;
5. The amount of any deduction from gross revenues, identifying the reason for the deduction, and the manner

in which it was calculated;

6. If revenues are allocated among the City and other entities (as may be the case with regional advertising revenues), the total revenues, and the manner in which the revenues were allocated.

C. The report shall be in a form the City prescribes, or if there is no form, in a form consistent with the manner in which grantee maintains its books and records.

Sec. 13-1-14. - Fines and penalties.

Subject to the provisions of section 7-8-8 of this Code, the City may impose a civil penalty on a grantee not to exceed the following amounts per day, or any part thereof, for the occurrence or continuation of any of the following violations:

A. $200.00 for any failure to complete system construction in accordance with a grantee's construction obligations contained in this chapter or grantee's franchise agreement.

B. $100.00 for any failure to provide data, documents, reports or information to the City.

C. $75.00 for any failure to comply with any of the provisions of this chapter for which penalty is not otherwise specifically provided, including customer service violations.

Each day that any of the above violations shall continue shall be considered a separate violation for which said penalties can be assessed.

Sec. 13-1-15. - Franchise fee.

A. *Specified; terms of payment.* Each grantee shall pay a franchise fee in connection with provision of video services in an amount equal to five percent per year of the grantee's annual gross revenue. Said fees shall be paid quarterly, not later than 60 days after the end of the preceding three-month period ending, respectively, June 30, September 30, December 31 and March 31. Not later than the date of each payment, each grantee shall file with the City a written statement signed under penalty of perjury by an officer of the grantee during a quarter for which payment is made. Acceptance of payment shall not be construed as an accord that the amount paid is correct nor shall it be construed to release any claim which the City may have for any further sums payable under this section. Any franchise fees which remain unpaid after the dates specified herein shall be delinquent and shall thereafter accrue interest at the maximum legal rate until paid.

B. *Increase.* If the FCC, congress or other governmental entity with authority over video service providers allow a franchising authority to increase the franchise fee beyond five percent, then the City may increase the franchise fee paid by grantees holding franchises to the maximum permitted amount, but no more than six percent of gross revenues prior to the scheduled expiration date of the franchise, or the date the franchise terminates, whichever is earlier; and the City may require any grantee issued a new or renewed franchise after such change to pay the maximum amount permitted by law as a condition of the grant of the franchise. Payment of a franchise fee pursuant to the provisions of this chapter shall be considered to be an addition to, and exclusive of, any and all authorized taxes, business license fees or other fees and assessments presently in effect or adopted subsequent hereto.

Sec. 13-1-16. - Term of franchise.

A franchise granted hereunder shall be for a term established in the franchise agreement. In no event shall any franchise term exceed 15 years.

Sec. 13-1-17. - Transfers.

A. *Consent of City required.* Unless specifically provided in the franchise agreement, a franchise or video service system shall not be sold, assigned, leased, subleased, mortgaged, transferred or conveyed in any manner whatsoever, either in whole or in part, voluntarily or involuntarily, nor shall any right, title or interest therein, either legal or equitable, pass to or vest in any person or entity other than the person or entity named as the grantee in the franchise agreement without the prior written consent of the City, obtained in accordance with the provisions of this section. Any attempt by the grantee to sell, assign, transfer or convey any interest in the franchise without obtaining the prior written consent of the City shall constitute a default in the franchise agreement.

B. *Changes of control included.* A "sale," "transfer" or "conveyance" of the franchise shall include any acquisition of the controlling interest of grantee, whether through purchase of stock, merger, consolidation or any other change of control. Without limiting the foregoing, a rebuttable presumption that a transfer of control has occurred shall arise upon the acquisition or accumulation by any person or group of persons of 20 percent of the voting interest or management control of the grantee.

C. *Considerations of City.* At least 120 days before a proposed sale, assignment, transfer or conveyance of a grantee's franchise is scheduled to become effective, such grantee shall petition in writing for the City's written consent to the proposed sale, assignment, transfer or conveyance. The City will not unreasonably withhold its consent, but without limitation, it may consider the technical ability, financial capability, legal qualifications and general character qualifications of the purchaser, assignee or transferee, including its experience and service record in other communities. A request for consent to the sale, assignment or transfer hereunder shall be made to the City in writing and the grantee and the proposed purchaser, assignee or transferee must cooperate with the City in its investigation of the transfer. A request for consent may be denied if the grantee or proposed purchaser, assignee or transferee fail to timely provide the City information the City requests in connection with its review of the transfer.

D. *Approval without response.* The City shall be deemed to have approved a proposed sale, transfer or assignment in the event that its response is not communicated in writing to the grantee within 120 days following receipt of the petition for consent to the proposed sale, transfer or assignment, unless the City and grantee agree to an extension of this period, subject to the following conditions:

1. Transferee shall assume all obligations and liability of the former grantee, known and unknown.
2. An approval without response is not a representation, express or implied, that the grantee is in compliance with the franchise.
3. A sale, assignment or transfer shall not relieve the former grantee of its liabilities under this chapter until the sale, assignment or transfer actually takes place unless otherwise specifically relieved by the City.

E. *Assignment for creditors.* Notwithstanding any other provision of this chapter or a franchise agreement:

1. A video services franchise shall automatically terminate by force of law 120 calendar days after an assignment for the benefit of creditors or the appointment of a receiver or trustee to take over the business of the grantee, whether in a receivership, reorganization, bankruptcy assignment for the benefit of creditors, or other action or proceeding.
2. However, the franchise may be reinstated if, within the 120-day period:
   a. The assignment, receivership or trusteeship is vacated; or
   b. The assignee, receiver, or trustee has fully complied with the terms and conditions of this chapter and the

video services franchise and has executed an agreement, approved by a court having jurisdiction, assuming and agreeing to be bound by the terms and conditions of the video services franchise and this chapter.

F. *Foreclosure or judicial sale.* Notwithstanding any other provision of this chapter:

1. In the event of foreclosure or other judicial sale of any of the grantee's video system or associated property, the City may revoke the video services franchise at a public hearing before the City Council, by serving notice upon the grantee and the successful bidder at the sale.
2. The video services franchise shall terminate 30 calendar days after serving such notice, unless:
   a. The City approves the transfer of the video services franchise to the successful bidder; and
   b. The successful bidder agrees with the City to assume and be bound by the terms and conditions of the video services franchise and applicable law.

G. *Transfer limitation.* The provisions of this section are not in lieu of transfer approvals that may be required, including approvals required under title 7, chapters 10 and 11 of this Code.

Sec. 13-1-18. - Continuity upon termination or transfer.

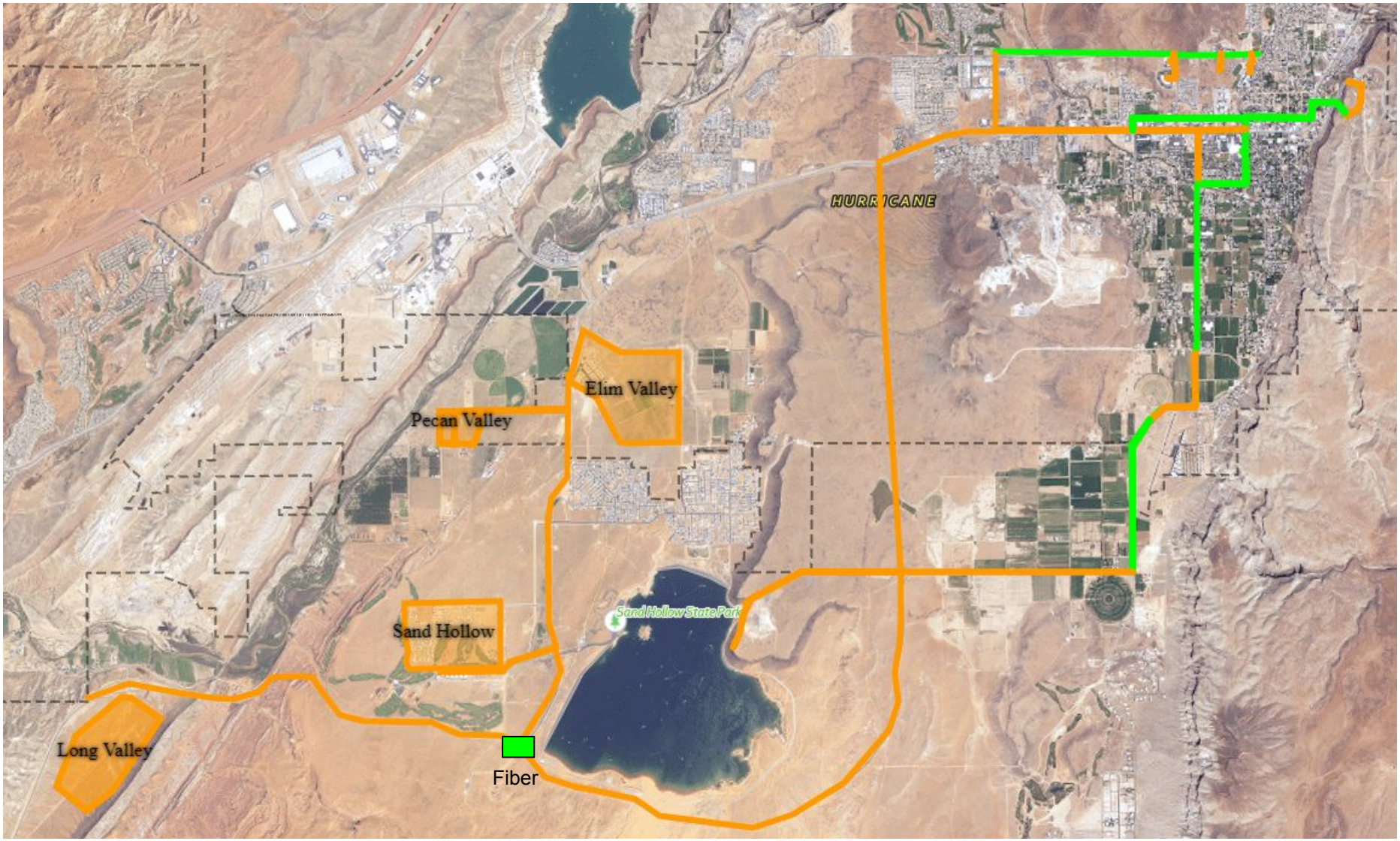
In the event of a termination, revocation, or transfer of grantee's franchise for whatever reason, grantee shall ensure that all subscribers receive continuous, uninterrupted service regardless of the circumstances. At the City's request, grantee shall cooperate with the City to operate grantee's video service system for a temporary period following termination or transfer of the franchise as necessary to maintain and to ensure an orderly transition from one operator to another to avoid disruption of public streets and public property, and to ensure continuity of service to subscribers. During such period, the video service system shall be operated as if the terms and conditions of this chapter and franchise agreement continue to apply.

Sec. 13-1-19. - Application to persons holding franchise.

The revisions to this chapter adopted by the ordinance codified herein do not relieve a cable services franchisee of any obligations that were included in its franchise by reference. To the extent that the revisions establish additional obligations for such franchisee, they shall be enforceable against it to the maximum extent permitted by law.

Sec. 13-1-20. - Relation to infrastructure provider franchise.

In lieu of requiring a video services franchise for a video services provider offering services via an infrastructure system the City may choose to enter into agreements with the infrastructure provider and the video service provider with respect to the provision of video services, so long as the benefits that could be obtained through a franchise are obtained and enforceable through those agreements.


HURRICANE
Elim Valley
Pecan Valley
Sand Hollow State Park
Sand Hollow
Long Valley
Fiber

InfoWest, Inc.

– Sec. 13-1-3 Application for Franchise Agreement

A.

1. InfoWest, Inc – 435 E Tabernacle, St. George, Utah 84770

2. Business Entity

a. List of Shareholders – InfoWest

InfoWest List of Shareholders

Shareholders	Address	Phone
Kelly Nyberg	207 Shadow Point Drive St. George, Utah 84770	435-229-2713 – Cell
Randy Cosby	290 S Marble Canyon Cir Cedar City, Utah 84720	435-862-4562 – Cell
Aaron Gifford	293 N. 2790 E. St. George, Utah 84790	435-229-2745 – Cell 435-215-1000 – Home
Eric Pedersen	646 E. 1100 S. St. George, Utah 84790	435-229-5444 – Cell
Gary Koeven	163 N. Main Washington, Utah 84780	435-680-7240 – Cell 435-628-7240 - Home
Cassidy Larson	947 S. White Sands Dr. Washington, Utah 84780	435-229-2717 – Cell
Mark Shumate	657 S Main Street Ivins, Utah 84738	435-229-2722 – Cell
Jackie Dearden	1164 Wesley Powell Dr. St. George, Utah 84790	435-313-2154 – Cell
Pete Larsen	586 W 300 S PO Box 480 Fountain Green, Utah 84632	435-590-6763 – Cell
Ryon Bowler	776 Diagonal #20 St. George, Utah 84770	435-862-1331 – Cell
Adam Hardy	3710 Skyline PO Box 113 Logandale, Nevada 89021	702-496-7736 – Cell
Jeff Knight	177 N. Roundabout Way Cedar City, Utah 84720	435-531-9533 - Cell

b. Refer to 2(a). as this is a complete list of all InfoWest Shareholders.

c. N/A

d. N/A – InfoWest is not a video provider.

e. InfoWest has been in the ISP business for 28 years. InfoWest was the very first Internet Provider in Southern Utah and has extensive knowledge of providing Internet Service. InfoWest is also a medium to large company with nearly 100 employees and over 20,000 customers on it's network. InfoWest has the expertise to provide state-of-the-art telecommunication services to the Hurricane Valley.

f. InfoWest/Grantee is NOT filing as a cable operator.

3. InfoWest currently has an extensive wireless network which covers 100% of the Hurricane Valley with thousands of customers located in the valley and in other parts of Southern Utah. InfoWest is currently expanding it's fiber infrastructure which currently runs past the Sand Hollow reservoir on SR7 connecting into SR9. InfoWest would like to extend it's fiber network down into the heart of Hurricane city and build a ring to create redundancy. The obvious benefits for the expansion of InfoWest's fiber network into Hurricane city are increased competition, better rates and faster speeds for the residents and businesses of Hurricane City. InfoWest is looking to invest millions of dollars into areas of Southern Utah and has targeted the Hurricane Valley as one of those areas.

HURRICANE CITY
UTAH

STAFF COMMENTS

Consideration and possible approval of a **reduction in park and road impact fees for an apartment complex located at approximately 6129 W 100 South** H-4-2-4-3211 - Kyle Arbizu

Discussion:
The applicant is requesting that the City adjust their impact fees for an 18 unit apartment complex. An impact fee is a fee charged with a building permit that is used to build master plan infrastructure. An impact fee is justified within Utah law as a tool to have developers contribute to their impact within the City. The City uses these fees to help build new roads, parks, water line, wells, and other needed improvements required by growth. The City must go through a rigorous process set by state law to adopt impact fees, including an impact fee analysis study and public hearings. Hurricane City has followed those steps and has adopted several impact fees that gets charge for every building permit for each new unit built within Hurricane City.

Hurricane City Code list standards that an applicant needs to meet in order for the City Council to approved adjusted impact fees:

Sec. 9-2-5. - Adjustments. (Impact Fee)
A.Request. In order to ensure that impact fees are imposed fairly, and in order to respond to unusual circumstances in specific cases, the City may adjust the standard impact fee at the time the fee is charged. Such adjustment shall be made only upon specific written request to the City by persons subject to payment of such fees and after consideration of the matter by the City at a regular meeting of the City Council.

B.Submission of application; decision. The City may adjust the amount of impact fees to be paid on any specific development based upon studies and data submitted by the developer evidencing that the impact fee imposed is unfair or not reasonably related to the impacts caused by such new development. The application to adjust fees, together with any supporting data and studies, shall be submitted to the City staff for review and recommendation to the City Council. Within 30 days, the City Council shall consider all pertinent information and make any adjustments deemed appropriate at a regular meeting of the City Council.

At the time of this report, staff has not done a full review of the request and does not have a recommendation at this time. Staff generally recommends that any application to adjust impact fees is held to the highest standard allowed by City code to ensure fairness with all those who develop within Hurricane City.

Findings:

The application is currently under review.

Recommendation:
Staff is reviewing the application and does not have a recommendation at this time.

Attachments:
1. impactfees
2. impact-fee-handbook
3. Huricane City Council Agenda
4. Shadow Brook Apartments Estimate-200 amp
5. Shadow Ridge Apartments
6. Anderson Apartments 3-5-2020 Arch Set
7. CURTIS ANDERSON-HURRICANCE APARTMENTS-C6.0 LANDSCAPING
8. Impact fee reduction
9. Impact Fees - Fays Summary

Impact Fees & Housing Affordability

A Guide for Practitioners

U.S. Department of Housing and Urban Development
Office of Policy Development and Research

IMPACT FEES AND HOUSING AFFORDABILITY

A Guidebook for Practitioners

Prepared for:
U.S. Department of Housing and Urban Development
Washington, DC

Prepared by:

Newport Partners, LLC
Davidsonville, MD
and
Virginia Polytechnic Institute and State University
Alexandria, VA

June 2008

About the Guidebook

This Guidebook was prepared by Liza K. Bowles of Newport Partners, LLC and Arthur C. Nelson of Virginia Polytechnic Institute and State University under contract to the Department of Housing and Urban Development. It draws heavily on various research papers prepared under subcontract to Newport Partners. These papers and their authors are listed here:

- *The Past, Present and Future of Impact Fees*, August 2005, prepared by James C. Nicholas, University of Florida;

- *State Impact Fee Enabling Acts and Housing Affordability*, February 2005, prepared by Arthur C. Nelson, Ph.D., Professor and Director of Graduate Studies in Urban Affairs and Planning, Virginia Polytechnic Institute and State University, and Clancy Mullen, Duncan Associates;

- *Proportionate Share Impact Fees and Housing Affordability,* January 2006, prepared by Arthur C. Nelson, Ph.D., Professor and Director of Graduate Studies in Urban Affairs and Planning, Virginia Polytechnic Institute and State University; and Liza K. Bowles and David J. Dacquisto, Newport Partners; and,

- *Infrastructure Financing Techniques: Impact Fees and Alternatives*, June 2005, prepared by Arthur C. Nelson, Ph.D., Professor and Director of Graduate Studies in Urban Affairs and Planning, Virginia Polytechnic Institute and State University.

- The case study material was developed by Bowles and Dacquisto of Newport Partners in conjunction with Nicholas, Nelson, Mullen and Juergensmeyer.

Full copies of the briefing papers as well as additional resource material prepared under this project are available at HUD's Regulatory Barriers Clearinghouse http://www.huduser.org/rbc/.

Acknowledgements

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Finally, we acknowledge the constructive review by David Crowe (who also provided data on the relationship between house size and occupants per unit by unit type) and Paul Emrath, both of the National Association of Home Builders.

NOTICE

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Executive Summary

Impact fees are one-time charges applied to new development. Impact fees are a form of land-use regulation designed to assure that communities maintain adequate levels of public facilities in the face of growth. The resulting revenue generated for the construction or expansion of new facilities is coincidental to their land-use regulatory (i.e. police power) purpose. Were it not for growth many communities would have adequate public facilities and often if growth is at a manageable pace adequate public facilities can be provided concurrent with the impacts of growth. To assure adequate public facilities, impact fees are assessed and dedicated principally for the provision of additional water and sewer systems, schools, libraries, parks and recreation facilities, and other infrastructure made necessary by the presence of new residents in the area. The funds collected cannot be used for operation and maintenance, repair, alteration, or replacement of capital facilities.

As will be noted, impact fees are not the best way in which to finance most public facilities from a variety of theoretical perspectives and instead taxes are. However, in the absence of the legal or political ability to raise taxes combined with a desire to maintain level-of-service quality in their communities, elected officials may see impact fees as a pragmatic solution.[1]

Impact fees have expanded and evolved substantially throughout the United States over recent decades, and currently appear in a wide variety of forms covering different types of infrastructure in varying amounts around the country. These changes have taken place through legislation, regulations and court cases. While the process is extraordinarily complex and there have been many debates over the specifics, in some ways the underlying fee principles are now better defined and more straightforward than in the past. Indeed, it may be one reason impact fees have grown substantially in many communities.

However, impact fees remain somewhat controversial. Different interests naturally have different perspectives on impact fees, as the table below notes.

Stakeholder	Perceptions and Concerns
HUD	Need to keep housing affordable, need to help communities struggling with infrastructure financing problems
States	Financing of infrastructure is important to economic growth, new taxes are not popular
Local government (planners, elected officials, active citizens)	Often want to manage growth, want to preserve housing values, don't want new taxes, may have little financial incentive to promote affordable housing
Developers	Want to maximize return, want a predictable system, cannot always pass fees on to builder or land owner
Builders	Want to maximize return, cannot justify building affordable homes if lot costs and fees are too high
Home buyers	Low and moderate income buyers cannot afford high fees, often there is no substitute choice of housing
General population	Impact fees keep general taxes lower, often do not understand the impact that fees have on housing prices and the need for affordable housing

[1] While local general funds are composed of many sources of revenue, for the most part they come from local taxes. The 2002 Census of Government Finances shows local government "general revenues" totaled $727 billion with taxes accounting for $535 billion or nearly 75%.

One of the central themes in structuring and implementing impact fees of all types is the concept of "proportionate share," which has been generally accepted and dates back to at least the 1970's. From a legal standpoint, impact fees are legally prohibited from charging developments more than a proportionate share of the cost of new facilities. This is closely related to the very definition of impact fees, which are distinguished from taxes or general charges and required to be based on actual or projected expenditures. Charging proportionate shares is also frequently supported from a policy and fairness standpoint. Ensuring that impact fees do not charge more than the proportionate share is fair and equitable and protects affordable housing from paying a disproportionate share.

Notwithstanding the broad underlying support for proportionate shares, it also leads directly to significant questions and complications. In reality while the courts have made it clear that lawful impact fees must reflect proportionate shares, they have also accepted very relaxed approaches including the common use of impact fees set at average levels and then applied to every case in the community. In other words, so long as the process achieved an overall, general correspondence between costs and fees, it could be legally accepted as an impact fee. Yet using flat fees to pay costs that do not vary with unit size has had serious drawbacks because it charges smaller homes and apartments disproportionately large shares of costs, and larger homes and apartments disproportionately smaller shares. Unlike real property taxes, flat fees tend to have a “regressive” effect; that is, they fall disproportionately on those with lower incomes than with higher ones.

Designing More Equitable Fees

The purpose of this guidebook is to help practitioners design fees that more equitably reflect actual proportionate share and therefore have less of a negative impact on housing affordability. It is not a primer on impact fees and assumes some general familiarity with public financing terminology. It is not a research report but a guideline, based on substantial research, for addressing issues of housing affordability and equity. Fortunately, modern information systems make it easier than ever before for communities to develop impact fees that correspond more accurately to actual costs associated with new homes. While there are different variables that might be used for this purpose, based on a comprehensive literature review and research conducted in the course of this project, the authors found that the simplest and most universal factor associated with actual costs is the square footage of the home. For certain impact fees, particularly those covering libraries, parks, open space and construction of schools, square footage of the homes may be sufficient for allocating costs. For other fees, such as those covering roads, public safety and water or drainage, additional significant variables should also be considered along with dwelling unit square footage in determining the appropriate costs and payments. Depending on the particular fee, these variables might include size of lots and the density of subdivisions or broader neighborhoods. But the key point is that basing all types of impact fees in whole or in part on house or apartment square footage rather than charging uniform rates is straightforward to implement and helps to avoid overcharging smaller units more than their true proportionate share.

This Guidebook takes this core research finding and applies it to the construction of impact fee programs. It includes information that is useful to local jurisdictions that are either in the process of implementing impact fees, or considering revisions to current impact fee programs. It includes information on the history of impact fees; discusses alternative financing models to ensure the most appropriate financing tools are at least considered; summarizes state legislation which can influence the design of local impact fee programs; and addresses how to design impact fees to be more progressive. Case studies of local government impact fee programs that should provide valuable insights to the reader on the development of innovative impact fee programs that are sensitive to affordable housing are also included.

Additional information is presented in this Guidebook in the form of a series of decision guides that include model questions and potential answers. Some of the questions and answers are potentially applicable to all local governments with infrastructure financing needs, with the balance geared toward increasing the level of understanding and providing guidance on questions of equity and revenue credits. These decision guides draw off the text in each chapter and will help the user make decisions based on their unique needs and circumstances. The issues are presented in two specific sets of decision guides which lead the reader through a series of questions and answers.

- The first set of decision guides is included in Chapter Two, Capital Facility and Infrastructure Financing Options, relates to categorizing the financing needs and providing for various financing options based on subject matter. This series of guides is meant to help the practitioner take the material presented in this chapter on infrastructure financing options and decide whether impact fees are the most appropriate financing tool. Infrastructure financing needs range from very simple and clear needs to complex situations. The simplest infrastructure needs for public facilities that will be constructed without any regard to user ability to pay (such as fire stations) are under one decision guide, while complex infrastructure needs dealing with the extent users are willing to pay for specifics are under another decision guide.
- The second set of decision guides is included in Chapter Four, Impact Fees and Housing Affordability. This set of decision guides delves more deeply into issues relating to specific impact fee program design to help practitioners take the material presented in this chapter relating to equity and apply the material through the question and answer format. The decision guides are intended to help practitioners determine whether their existing impact fee programs meet basic equity and fairness criteria; and, in the case of new programs, ensure a program design that is fair and equitable.

The appendices included in this Guidebook include core background and research information for reference purposes. We have included these pieces as they can contribute to a better understanding of impact fees and how the authors arrived at the recommendations contained in the Guidebook.

Additional Resources

Key to both designing fair and equitable impact fees, and ensuring that they withstand the scrutiny of the legal system, is incorporating good data. Fortunately, there is substantial data often available at the local level. In addition, the Department of Housing and Urban Development maintains a website where practitioners can find useful resources that form the underlying basis for this Guidebook. This website is: http://www.huduser.org/rbc/.

Introduction

On January 9, 2003, Lincoln, Nebraska's Mayor Don Wesely stood on a bumpy graveled portion of West Adams Street that leads to new homes in northwest Lincoln to drive home his attitude on the need for impact fees.

> "The washboard-like graveled West Adams Street is an example of how big the funding gap for extending arterial streets really is and why impact fees are needed," said Mayor Wesely. "The City has fallen so far behind that the City is not scheduled to pave this street for another six years. It's less safe than a paved road, it's dusty, and it's a daily problem for the residents.
>
> This is the wrong way to build our community. If impact fees had been in place, West Adams would have been paved much sooner because the street fees would have helped pay for the improvements.
>
> Critics have said impact fees will stop growth," said Mayor Wesely. "What stops growth is uncertainty and the inability to pay for new streets, water and sewer systems and parks. Impact fees are not the whole solution, but they are a fair way to share the costs between the new development and the taxpayer."[2]

Mayor Wesely's comments echo those of many city officials who want to find a way to pay for growth. Impact fees have now become a fact of life in an ever-increasing number of communities. Originally a phenomenon of fast-growing coastal communities in Florida and California, the use of such fees has now spread to mid-America. Increasingly impact fees are seen by local officials as the best option available. .

Impact fees, one-time charges on new development, provide revenue for new or expanded infrastructure to support new development. Impact fees take the form of a predetermined monetary payment -- a fee -- and are generally levied against developers to fund capital expansion of large-scale public facilities and services.[3] Increasingly, such fees play an integral part in giving local governments the ability to cope with the many burdens of rapid population growth such as the need for new parks, roads, schools, jails, public buildings, sewer and water treatment facilities, and public safety (fire, police, and Emergency Medical Service) facilities.[4]

Impact fees have become widely used especially in growing regions for a variety of reasons but three in particular: a) locally elected officials are increasingly loathe to ask voters and voters are generally unwilling to raise their taxes in part to help provide increasingly higher levels of new facilities demanded by new development, and b) state and local governments have municipal financing constraints including state constitutional limits on property tax rates, and c) there is little financing provided by state and federal governments for infrastructure to local governments. While in theory there are many better ways to finance infrastructure, in practice impact fees often become the path of least political and legal resistance.

---

2 News release accessed from http://www.lincoln.ne.gov/city/mayor/media/2003/011303a.htm.

3 See Susan M. Denbo, Development Exactions: A New Way to Fund State and Local Government Infrastructure Improvements and Affordable Housing?, 23 REAL EST. L.J. 7, 11 (1994).

4 Juergensmeyer & Roberts, supra note 1, at 421.

In one form or another, impact fees now exist in nearly all U.S. states and are a common technique used to generate revenue for capital funding necessitated by new development.[5] To date, approximately twenty-six states have enacted impact fee enabling legislation and in most other states impact fees are enacted pursuant to home rule powers or pursuant to individual local government enablement.

Historically, it has been a primary function of state and local governments to construct, operate, maintain, and improve the basic physical infrastructure of American communities. However, as a result of three significant events in American history, this traditional approach began to break down. The first of these events was the sharp rise in inflation in the 1970s[6] and the decimation of fixed-base taxes such as the motor fuels tax. The second factor leading to the breakdown of the traditional approach was the general hostility to the taxation of real property, thus forcing local jurisdictions to look elsewhere to fund the ever-increasing demands of constituents.[7] Third, was the failed expectation that the federal government would pay a significant portion of infrastructure costs. Although, historically, the federal government has paid little or no portion of such costs, many environmental mandates enacted in the '70's, especially regarding clean water, did initially include significant federal financial support. Many communities began to rely on these funds just at the time the federal government returned to a more traditional role of limited financial support for local infrastructure. Because these factors were occurring at a time when the pace of urban development was increasing, especially in the fast growing communities in Florida and California, both the demand for and the cost of investment in public infrastructure began to climb, while at the same time the available financial resources were falling. As a result, there arose an increasing need for investment concurrent with declining means.

Florida, especially, presented a financial "perfect storm". Population was growing rapidly, homebuyers were expecting higher levels of services, and the lessening of state and federal support resulted in ever-increasing demands of localities. An increasing share of the responsibility to pay for these and other public investments fell directly on local jurisdictions by default.[8] In order to assume control of providing these infrastructure needs, local governments were forced to pay the associated costs commonly by raising local property taxes. At the same time, they were hit by the "taxpayers' revolt." Increasingly, local elected officials faced a public demand to increase public services without increasing taxes. Impact fees arose from this environment as an acceptable political alternative to solve the need for financing. Because of their intrinsic attractiveness to local governments, their use for an ever-increasing number of facilities and services spread rapidly.

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5 See J. Juergensmeyer & T. Roberts, Land Use Planning and Development Regulation Law 421 (Practitioner Treatise 2003), and J. Nicholas, A. Nelson, & J. Juergensmeyer, A Practitioner's Guide to Development Impact Fees 13 (1991) [hereinafter cited as Nicholas, Nelson & Juergensmeyer].

6 For most of the county's history inflation averaged two percent or less, with the periods of war being significant exceptions. Beginning in the 1960s and continuing through the 1980s, inflation existed at hitherto unprecedented rates, peaking at over 18 percent in the late 1970s. See U.S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS website, available at www.bls.gov (last visited Oct. 2, 2003).

7 See generally Lawrence Susskind, Proposition 2 ½: Its Impact on Massachusetts (1983).

8 Both state governments and the federal government limited funding programs for public investments because of a sharp rise in cost. Furthermore, there was a greater burden on the local governments responsible for handling these matters because of required improvements to many infrastructure facilities, such as water pollution control facilities. See, e.g.,The Water Pollution Control (Clean Water) Act, 33 U.S.C. § § 1251 et seq. (1994).

However, impact fees are often criticized for having adverse effects on housing affordability either by raising prices, reducing supply or both. Some recent studies show that carefully tailored impact fees may not necessarily reduce the supply of housing that is affordable and in fact may increase it.[9] Nonetheless, Vicki Been observes that:

> "…impact fees also can be abused, either to exclude low-and moderate-income residents or people of color from communities, or to exploit new homebuyers, who have no vote in the community. They also can be unfair to those caught in the transition from other forms of infrastructure finance. By careful attention to the myriad of issues …*researchers can help local governments seize the potential impact fees offer for promoting* more efficient development patterns while minimizing any negative effects impact fees might have on *the affordability of housing and the distribution of housing opportunities to all residents (emphasis added).*[10]

Her concluding observation is the very purpose of this Guidebook: to educate practitioners on impact fees and present recommended approaches that can reduce potentially adverse effects of impact fees on housing affordability. Two approaches are recommended. The first is to calculate impact fees based on house size in square feet because, as noted by the National Association of Home Builders, as the size of the house increases so does the number of occupants at least up to a certain size (see Chapter 5). The second is to waiver or defer impact fees on affordable housing, as done in several communities around the nation (see Chapter 6).

Why is housing affordability an important impact fee local policy consideration? In many (and some would say most) growing metropolitan areas, school teachers, first responders, building maintenance, retail and service workers among many others are simply unable to afford to buy or rent housing in the very communities in which they work. Instead they either pay a disproportionate amount of their income for housing in or near communities where they work or, more often, live in other communities incurring substantial commuting costs.[11] As a result, many become detached from communities where they work – and in the case of public service workers such as teachers and first responders this undermines community cohesion. Indeed, first responders may not be able to respond timely to catastrophic events because they may live so far away. The extent to which impact fees may by themselves weaken housing affordability to people working in the community and what can be done to offset this outcome is the focus of this Guidebook.

The overall guidance presented in this document is based on considerable research conducted over the years and additional research conducted specifically for this project. The research findings clearly support

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9 Gregory Burge and Keith Ihlanfeldt of the DeVoe Moore Center and the Department of Economics at Florida State University found that through a cause-and-effect analysis the supply of multi-family and higher-density single-family homes increased in suburban communities that had impact fee programs. Among the reasons are removing "NIMBY" concerns about such housing "paying its own way". In *Impact Fees and Single-Family Home Construction* they note "(i)mpact fees earmarked for public services other than water and sewer system improvements are found to increase the construction of small homes within inner suburban areas and of medium and large homes within all suburban areas" and in *The Effects of Impact Fees on Multifamily Housing* they state "(i)mpact fees earmarked for public services other than for offsite water and sewer system improvements are found to expand the stock of multifamily housing construction within inner suburban areas."

10 Vicki Been synthesizes these issues in "Impact Fees and Housing Affordability", *Cityscape: A Journal of Policy Development and Research,* 8(1): 139-185 (2005).

11 See *Paycheck to Paycheck*, National Housing Coalition (2004).

the intuitively obvious assumption that bigger houses place more demand on services. Thus, bigger homes should pay higher fees to be fair and equitable. The basic conclusion of the authors and the underlying premise of the guidance is that to be fair and equitable, impact fees need to be based on square footage as a starting point, followed, in some cases, by additional elements that further vary costs across households to reflect other underlying cost differences. The guidance offered here is meant to be a balanced and pragmatic approach to implementing equitable fees.

The Guidebook has six chapters, a series of questions presented as decision guides included within two of the chapters, and three appendices.

- Chapter 1 examines the use of impact fees historically and currently, and briefly looks at future patterns and the need to structure fees progressively to limit the impact on affordable housing.

- Chapter 2 provides an overview of various infrastructure financing options to help practitioners understand the basic financing options and ensure that a thoughtful approach is taken to considering various options. The simplest infrastructure financing needs, covered in Decision Guide 2-1, are public facilities or services that need to be provided without any regard to user ability to pay or extent of use; for example, fire services or police protection. The most complex infrastructure needs, covered in Decision Guide 2-4, tend to be infrastructure necessary but with a substantial ability to assess the users for specifics; for example, roads, which might be funded at least in part by tolls. Other programs fall somewhere between the simple and complex.

- Chapter 3 provides an overview of the role of the state in impact fee programs. It includes summary information about the states with enabling legislation and reports the types of facilities eligible for impact fee financing.

- Chapter 4 is designed to give clear guidance on how to set impact fees that are consistent with the concept of proportionate share. The chapter begins with a review of key elements associated with setting the amounts of particular impact fees. It explains the rationale for the use of impact fees based on square footage, and in some cases, additional elements. This chapter includes decision guides that serve as checklists of procedures that local governments can follow to assure that impact fee design does not unduly affect housing affordability. The focus here is on proactive measures to alleviate impact fee effects.

- Chapter 5 presents case studies documenting how impact fees incorporating these principles have been implemented in three jurisdictions around the U.S.: Atlanta, Georgia; Albuquerque, New Mexico; and, Alachua County, Florida.

- Chapter 6 concludes this Guidebook. It is an overall summary of the Guidebook contents.

Supplemental materials which local government planners may find useful in understanding the relationship between impact fees and the comprehensive plan; and the provision of infrastructure financing through special assessment districts are included as Appendix A and B. Appendix C is sample land purchase option contract language that the authors received from a developer showing how such contracts may be used to "internalize" impact fee payments to the seller of land – consistent with land economic theory. Appendix D is a briefing paper prepared while doing research for the Guidebook. This is a core piece of research that examines the variables that can create the greatest negative impact on housing affordability and inadvertent inequities that disproportionately affect the smallest and most affordable units. Conversely, it also details the variables that should be included to create impact fees that are fair and equitable. This briefing paper serves as a reference piece for the approach suggested in this Guidebook.

Chapter 1 - Impact Fees - Past, Present and Future

This chapter serves as a background on impact fees and how they have evolved over time. It also includes data on how impact fees are being assessed today with tables summarizing national data and several useful local examples illustrating specific impact fee structures. This chapter concludes by introducing the concept of equity as applied to impact fees and the impact on affordable housing.

The Need for Infrastructure Financing Tools

The financing of basic community infrastructure in the United States has become more complex and more expensive as each year passes. It has become more complex because we are continually expanding our urbanized areas and, thereby, requiring increased quantities of infrastructure. Table 1-1 shows some basic trends for the United States. The urbanization of the nation's population has continued and with continued urbanization come increasing numbers of people and households looking to government for services, including the provision of infrastructure. The population continues its shift to metropolitan areas,[12] although at a lower rate than in the past.[13] Both the number and the populations of all urban areas have continued to grow, with growth of the medium-sized cities being the greatest. In both the medium and largest cities the population per city declined, simply indicating that the cities added to that size grouping would be at the lower end of the size range, thus reducing the average size.

TABLE 1-1. METROPOLITAN POPULATION, CITIES & POPULATION PER CITY 1980 - 2000

	1980	1990	2000	% Increase 1980-2000
Population (000)				
Total	226,546	248,719	281,422	24.2%
Metropolitan	177,143	198,023	229,192	29.4%
Non-Metro	49,399	50,696	52,229	5.73%
% Urban	78.20%	79.60%	81.40%	
Cities 500K and Over				
Number	22	23	29	31.8%
Population	28,400.00	30,100.00	35,888.25	26.4%
Per City	1,290,909	1,308,696	1,237,526	-4.14%
Cities 100K – 500K				
Number	147	172	213	44.9%
Population	28,400.00	33,300.00	40,193.32	41.5%
Per City	193,197	193,605	187,819	-2.78%
Cities under 100K				
Number	18,513	19,067	19,214	3.79%
Population	83,800.00	89,700.00	98,800.00	17.9%
Per City	4,527	4,704	5,142	13.6%

Source: Statistical Abstract of the US, 2001, p. 1-67.

But increased numbers of people in cities alone understates the demand. As incomes have increased, the public's expectations of and demand for public facilities have grown. Schools are no longer aggregations of classrooms but have become multimedia learning and social/cultural centers. The transition has greatly

[12] There is a circularity here as new metropolitan areas continue to be created, thus adding to the metropolitan population by the simple act of creating more metropolitan areas.

[13] In 1920 the urban population first equalled the non-urban population in the U.S. Since then urbanization has grown to reach over 80 percent by the year 2000.

increased the cost of providing educational facilities. The same is true for park and recreational facilities. Gone are the days when a ballfield was simply an otherwise vacant area where ball was played. Now they are stadiums with all the accoutrements, including red dirt. A fire department no longer simply puts out fires; today it offers advanced life support. These evolutions are responses to public demands. Few would doubt that the quality of modern public services is greatly improved.[14] Few would doubt that the cost of these services has greatly increased.

The federal government has long since reached a peak in being a growth source of revenue to state and local governments. Since 1972, the federal portion of state and local revenues has remained constant at about 20%,[15] leaving state and local governments to rely on their own revenue-generating abilities to meet the demands of the public. Some suggest that the federal government is responsible for many of the increased costs being borne by local governments through the use of unfunded and partially mandates.[16]

As urbanization and public demands grew, inflation became an important political/economic fact of life. For most of the life of the nation, inflation was not an issue.[17] During the 1970s and 80s this was not the case. One of the more pernicious aspects of inflation is that it significantly weakens the revenue from fixed-base taxes, such as the motor fuel taxes. Inflation increases the cost that fixed-base revenue sources are to cover without increasing the means to pay those costs. Inflation increases the cost of road construction and maintenance but does nothing to the proceeds derived from a 6¢ or 8¢ per gallon levy. In the face of such a problem the logical thing to do is to raise the fixed-base tax. Property taxes, while not fixed-base, require action to be increased. The action required is an increase in the assessed or taxable value of the property.

Figure 1-1 shows annual rates of inflation from 1970 to 2004. During the time period the average was 4.95% per year, approximately twice the long-term rate of inflation. Annual inflation during 1980 was 13.5% and the year-over-year rate peaked during 1980 at over 17%. Such rates of price growth meant that the purchasing power of fixed-base taxes, such as the motor fuels tax, declined by 13.5% during 1980. One of the commodities most responsive to inflation is real estate, including development property. In fact, real property inflation tends to proceed

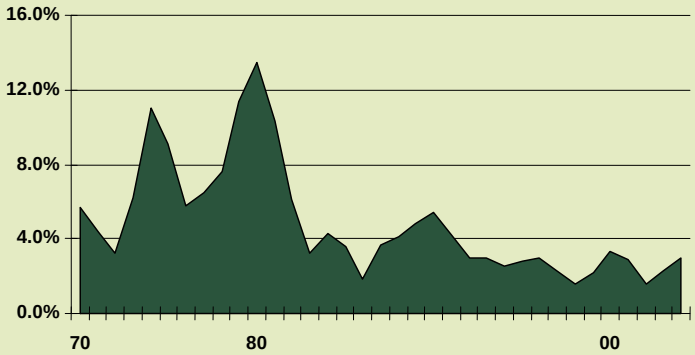

FIGURE 1-1. RATE OF INFLATION 1970-2004

[14] Nostalgia notwithstanding.

[15] *Stat. Abstract of the US*, 2001, page 262.

[16] The Clean Water Act required massive expenditures to be made largely by local governments. Of course, it could be argued that it was those local jurisdictions that dirtied the water so the burden of clearing that same water should be borne by them.

[17] From 1929 (the first year of consistent price indices) to date, the annual increase in prices has averaged 3.3%. If the two periods of rapid inflation are removed, the long-term rate of inflation drops to 2%.

faster than general inflation.[18] General inflation increased public facility operating and capital costs but it also increased the prices of both new and existing homes, thereby increasing the property taxes on those properties. It should not be surprising that California's Proposition 13 was enacted in 1978, during a period of unprecedented inflation. Proposition 13 rolled back property taxable values to 1975 and capped their rate of increase.[19]

Massachusetts soon followed in 1980 with Proposition 2½, which took its name from the limit on property taxes being no more than 2.5% of taxable value.[20] Since the referendum enactment of these two limits, all states have taken some action on limiting property taxes.[21] Thus, property taxes tend to act like fixed-base taxes because of the limitations imposed by legislation or constitutional amendment.

Local governments were faced with conflicting demands:

- Increase the supply of facilities, especially infrastructure, to larger populations;
- Increase the quality of public facilities, also to larger populations; and,
- Avoid tax increases in meeting these demands.

As these events unfolded, the philosophy of taxation moved more toward the use of the *Benefit Principle* and away from *Ability to Pay Principle*.[22] This shift, combined with continuing urbanization and inflation eroding the tax base, set the stage for "alternative" sources of revenues.

As a result of new federal environmental mandates local jurisdictions were also being directed to make massive investments in water pollution control facilities.[23] These investments originally were funded up to 85% by federal grants. They are now funded by federal loans amounting to 45%. The highway system that was to be primarily funded by federal sources has fallen into disrepair with increasing congestion because of the inadequacy of federal funding. States elected not to assume the primary role that the federal government was abandoning for precisely the same reason that the federal government was abandoning it: cost. The responsibility for highway maintenance and other major public investments have fallen to local jurisdictions by default. Where local governments attempted to assume these responsibilities they were met with the "taxpayers' revolt," a reaction to the increase in property taxes that resulted from increasing local absorption of these responsibilities as well as a more general unwillingness to pay the costs for homebuyers that did not yet live in their communities.. Clearly some other means of funding were needed. When the power to tax proved unsuccessful, local jurisdictions looked to their police powers as a means to address the problem.

American local jurisdictions have great discretion in the exercise of their power to protect the public's health, safety and welfare. By contrast, they have almost no independent discretion in the exercise of their power to tax without voter approval. It was natural then that the police powers would be turned to as an

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18 Between 1980 and 2000, all prices rose at 3.8% percent per year while shelter costs rose at 4.4%. See *Stat. Abstract of the U.S.*, 2001, p. 454. The median sales price of a new single-family home grew by 4.9% per year. See *Ibid*. p. 598. The median price of existing home sales rose by 4.1% per year.

19 See John Kirlin. *The Political Economy of Fiscal Limits*. Lexington, MA: Lexington Books.

20 *Ibid.*

21 Therese J. McGuire, "Proposition 13 and Its Offspring: For Good or Evil?", 52 *National Tax Journal*, 1999, 129-138.

22 Musgrave, Richard A., and Peggy B. Musgrave. 1989. *Public Finance in Theory and Practice.* 5th ed. New York: McGraw-Hill.

23 The "Water Pollution Control Act," commonly known as the Clean Water Act, PL 92-500.

alternative. Local communities found that growth and development meant more traffic, wastewater, and school children that somehow had to be accommodated. Absent the funds to make physical improvements, congestion resulted and with congestion also came citizen outrage. Increasingly, local elected officials faced a public demand to reduce taxes and maintain or even increase services. In such an environment, growth and development came to be viewed as detrimental rather than beneficial.[24] The detrimental aspects of urban growth provided the basis to invoke the police powers and protect the public against the congestion and loss of "quality of life" that further growth and development would entail.

The impact fee arose not out of any great thought or plan, but simply from desperation resulting from conflicting demands placed on local officials. Citizens demanded quality public services and taxpayers insisted on lower taxes. Builders demanded that they be allowed to serve a clearly apparent market for their products and those that earned their livings from development fought for their jobs. Local governments were vested with the authority to impose on new development reasonable conditions that were consistent with the protection of the public's health, safety and welfare in all of its manifestations. The impact fee filled this role. As a result, the use of impact fees spread rapidly with Florida in the forefront.

To understand the evolution of the impact fee it may be helpful to understand the state of urban infra-structure through considering a representative example. The small community of Key West, Florida, originally a private enclave, that still maintains those traditions today, is an island jutting out into the Straits of Florida. The city had been dumping its untreated sewage into the Straits. In order for the City of Key West to fund an Environmental Protection Agency mandated sewage treatment system, it would have to raise the monthly bill for each home owner by $65 to fund the expansion with revenue bonds.[25] An increase of $65 per month was considered to be outrageous and the citizens turned it down, thus creating an environmental and funding crisis. This crisis ultimately became an issue in the further development of the City in that the City was barred from making new sewer connections and thus new construction could not proceed. A cost-sharing agreement was struck between the City and the development interests that included a monthly bill increase of $15 which, combined with an impact fee, funded the sewage treatment system and development was allowed to proceed. As a result, the City stopped pumping its raw sewage into the Gulf Stream.

Education presented another area in which impact fees have filled a funding gap. Like sanitary and road infrastructure, school construction tended to be financed from inelastic revenue sources, and, these too failed to keep pace with need in areas of rapid growth with many schools becoming increasingly over-crowded.

Large scale, fast paced growth is not nationwide or even state-wide. In rapidly growing Florida, the actual growth areas are confined to no more that 10% of the geographic area of the state. Significant state funding support could not be expected for that would mean taxing both the growing and the non-growing (and therefore poorer[26]) areas with the result being taxing the poor to subsidize the more affluent. The state's legislatures joined the federal government in the position that if the needs were great enough, the

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[24] See William K. Reiley, *The Use of Land*, New York: Crowell, 1972.

[25] One of the authors (Nicholas) served as a consultant to the City of Key West during this period and these facts are from the author's on-site observations.

[26] In Florida, the per capita incomes of the non-growing portions of the state amount to approximately 50% of those of the growth areas. See *Florida Statistical Abstract*, 1995, pp. 199-204.

prosperous growth areas had the ability to fund the improvements needed to serve growth. What they lacked was the willingness to raise the funds.

Now, given this situation, what realistic alternatives were available to local governments? Although some communities did agree to raise local taxes, as a general rule, this approach did not get very far. Even in areas that increased taxes, they were generally insufficient to respond to the magnitude of the needs. Some communities sought to restrict growth to a level which could be accommodated by existing infrastructure. As could be expected, this "solution" has been has been hotly opposed by the building industry. Impact fees were the alternative to further congestion and a shut-down of building. Impact fees charged new construction and generated revenue that the community could use to expand the physical infrastructure needed to accommodate that growth.

However, impact fees have significant drawbacks. Capital improvements and infrastructure are needed "up front," but impact fees dribble in.[27] Roads, schools, parks and utilities are all needed ahead of development.[28] The problem is that funding is not available "up front" unless it is put up by the developer or borrowed by the host local government. Developers and local governments assiduously avoid both of these actions. Impact fees, while becoming an important component of local government finance, do not address the timing problem. Impact fees, as they are commonly implemented, charge new development when the construction is actually permitted. Thus the impact fee receipts "dribble in" as construction occurs. While jurisdictions prefer any revenues" to no revenues at all, they would prefer up-front revenues so that facilities can be constructed and be available as new development occurs.

Alpharetta, Georgia, received public support for a general obligation bond issue for road and fire facilities improvements. A large portion of this debt was for growth accommodating improvements that would be paid for by impact fees. The impact fees collected were used to pay debt service, thereby reducing the necessary tax rate. The key to this program was the public's willingness to support a general obligation bond. This support facilitated an impact fee funding program that provided road and fire protection improvements "up front" and did so at the lowest possible cost.

The key to resolving the "dribble in" problem is bonding, but bonding requires a secure source of revenue that can be pledged. Impact fees are not considered to be secure because their receipt will rise and fall with the level of construction in a community. The solution is to create some type of security, borrow against that security, and then use impact fees to make the required payments.

[27] Sometimes this is referred to as "trickle in."

[28] There is the question of where in the development process impact fees should be assessed. In particular, the earlier in the development process a given impact fees is collected, the longer the developer has to pay financing and other carrying costs and the more costly the home may become. The issue of timing is addressed in Chapter 4.

The Proliferation of Impact Fees

Table 1-2 shows the national average impact fees for 2003-2004 for single-family dwellings by type and it illustrates the wide range of fees with school impact fees being the most expensive and libraries the least. These norms are derived from a sample of 152 local governments including 44 in California, 51 in Florida and 57 in other states. These data are for jurisdictions that charge impact fees of various types. Not all of the 152 local governments charge each type listed in the table so the number per impact fees varies. The method of sampling is not scientific. Rather, the sampling was done by opportunity, meaning that when the opportunity presented itself, data were included in the sample.[29] Even with the caveats on sampling methodology, the table is useful in illustrating the types of fees and relative costs.

TABLE 1-2. AVERAGE IMPACT FEES BY TYPE

ROADS		SCHOOLS	
Maximum	$7373	Maximum	9,936
Minimum	130	Minimum	348
Average	1,761	Average	3,169
PARKS		PUBLIC SAFETY	
Maximum	8228	Maximum	8,031
Minimum	102	Minimum	79
Average	1344	Average	568
STORM DRAINAGE		LIBRARY	
Maximum	6,000	Maximum	1,843
Minimum	160	Minimum	54
Average	1,227	Average	415
WATER		SEWER	
Maximum	7,763	Maximum	6,998
Minimum	237	Minimum	265
Average	2,237	Average	2,061

As interesting as the cost of impact fees is the rate of growth in such fees. Table 1-3 shows the average non-utility (not including water and sewer) impact fee amount and annual growth rate from 1988 to 2004.

TABLE 1-3. AVERAGE TOTAL NON-UTILITY IMPACT FEE SINGLE FAMILY HOME
1988 – 2004

Year	Amount	Avg. Annual % increase
1988	$5,781	
1991	$7,649	10.8%
1995	$7,849	0.65%
1997	$8,006	0.99%
1999	$8,970	6.0%
2000	$9,767	8.9%
2002	$10,183	2.1%
2004	$11,012	4.1%
1988 - 2004		5.66%

The data shown in Table 1-3 are the results of the national survey conducted by Duncan Associates and are the averages for the jurisdictions included in this survey. (The 2005 survey can be found at http://www.huduser.org/rbc or obtained from Duncan Associates.) The average has grown at an annual rate of 4.07%. This may be contrasted with a rate of inflation (CPI) of 2.7% during the same period, and a construction cost index of about 2.9% (Engineering News Record, Annual Cost of Construction Index). It is apparent that the rate of increase has not been steady over the period. The trend line shown in Figure 1-2 is simply the annual rate of growth over the 16-year period rather than the year-to-year rate seen in Table 1-3.

[29] Impact fee data for inclusion in the sample was prepared by James C. Nicholas.

The data shown in Table 1-3 are the averages for all jurisdictions included in the sample. Over time many more jurisdictions have been included and some have dropped out. Given that the sample is not scientifically drawn, the conclusions drawn must be tempered. Table 1-4 presents a constant sample of impact fees.

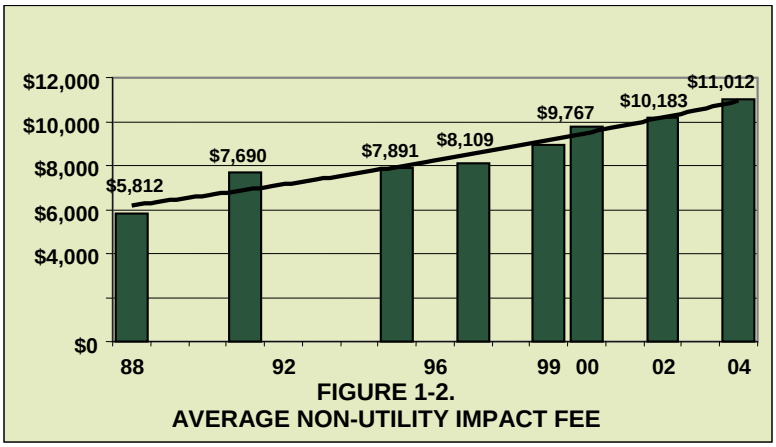

FIGURE 1-2.
AVERAGE NON-UTILITY IMPACT FEE

The amounts in Table 1-4 are substantially less that those of Tables 1-2 or 1-3 because not all fees were included in the constant sample. When the sample was begun in 1988 only a few types of impact fees were included. Those impact fees for the named jurisdictions have been followed over the 16 years and these results are shown in Table 1-4. It is interesting to note that the rate of increase of residential impact fees for the constant sample is in general accord with the variable sample; and that the data in Table 1-4 (depicted graphically in Figure 1-3) show the non-residential fees, especially industrial fees, have been growing more rapidly than residential fees. One explanation might be the lack of developer opposition in commercial versus residential.

TABLE 1-4. CONSTANT SAMPLE IMPACT FEE
1988 – 2004

	1988	2004	Avg. Annual % Increase
Residence	$2,782	$7,564	10.7%
Industrial	$481	$2,913	31.6%
Office	$1,316	$4,518	15.2%
Retail	$2,277	$3,978	4.7%

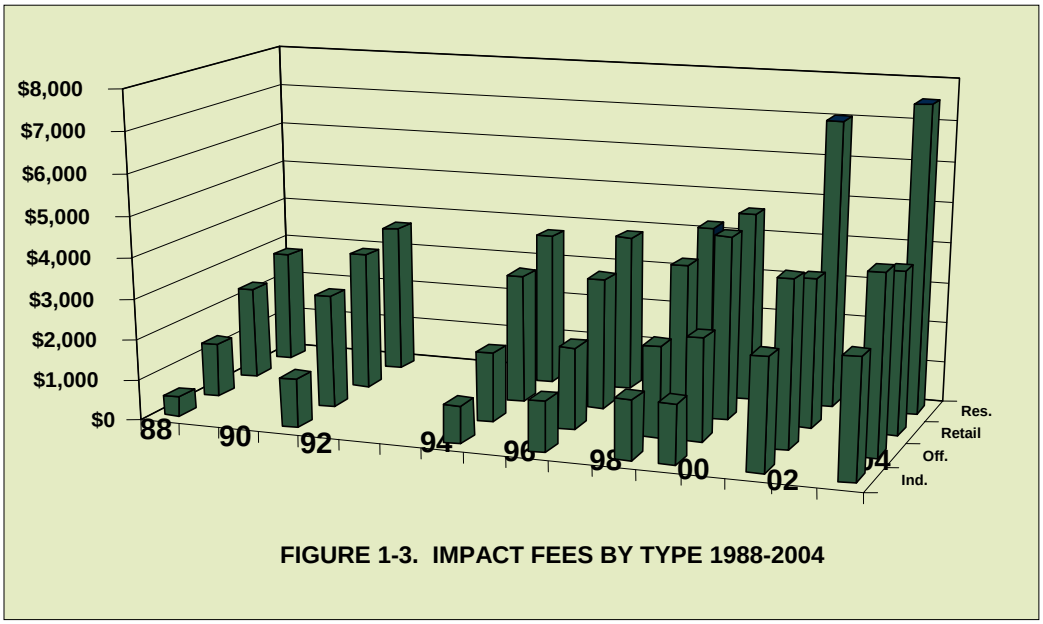

FIGURE 1-3. IMPACT FEES BY TYPE 1988-2004

General Trends in Impact Fees

Subsequent chapters of this Guide will provide detailed guidance as to how future impact fees can be shaped to be more equitable and more sensitive to housing affordability while also providing for sound fiscal decision-making. This section addresses the issue more generally providing historical perspectives, emerging practices, and lingering realities.

Impact fees began as minor supplements to traditional sources of capital improvement finance. The water and sewer impact fees that were at issue in the 1975 case of *Contractors and Builders Association of Pinellas County v. City of Dunedin*[30] were $325 for water and $475 for sewer.[31] These 1975 amounts are substantially below the $2,131 and $1,963 of today.[32] Similarly, the "transportation" fee litigated in *Broward County v. Janis Development Corp*.[33] was $100 which is very much less than the average road impact fee of $1,679, even after considering inflation.[34] The amounts of impact fees thus began small and became much larger. The role of impact fees began as supplemental and is now primary. But, the impact fee debate continues. That debate has evolved, however, from *whether* impact fees should be assessed at all to *how* they are assessed.

Local level debates concerning impact fees can address different types of equity. Intergenerational equity may be of concern because impact fees assessed on new homes may adversely affect the ability of the children of current residents of the community to buy homes where they grew up. Representational equity may be of concern because to the extent that impact fees are assessed on new homes bought by new residents of the community, these new residents had no say in the adoption of the policy. Equity in endowments may be of concern to the extent that impact fees are considered a form of "initiation" fee into a community much like country clubs charge high initiation fees affordable only to the affluent. While these concepts of equity are important, the focus of this Guidebook is how to address proportionate equity – that is, the extent to which the fee reflects the actual impact different housing units have on community facilities.

A critical aspect of proportionality is the extent to which impact fees are based on the impact of new development on facilities. Many impact fee programs assume that each residential unit had the same impact on facilities regardless of size, type, density, location, or other factors. Hence, the impact fee for a large single-family detached home is the same as for a small efficiency apartment despite the fact that census figures clearly show substantial differences in occupancy rates. These impact fees are described as "flat rate" fees, and are inherently unfair. The result is that flat rate impact fees have a "regressive" effect; that is, they fall disproportionately on those with lower incomes than with higher ones.

This Guidebook focuses on methodologies for calculating impact fees to ensure that the regressive effect is reduced if not eliminated. Through taking an approach that more correctly allocates the proportionate share, the resulting fees are far less regressive.[35] When done properly, impact fees as presently practiced

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30 329 So. 2d 314.

31 *Ibid.* at 315. These fees are for a single-family detached unit.

32 The 1975 water fee of $325 would be $1,265 after adjustment for changes in the CPI, and the $475 sewer fee would amount to $1,603. These indicate that the relative amount of Dunedin's fees has remained about the same.

33 311 So.2d 371.

34 Adjusting the $200 from 1974 to 2002 by the CPI yields a 2002 value of $683.

35 In Dolan v. Tigard (512 U.S. 687 (1994)) the US Supreme Court established the "rough proportionality" standard for exactions such as impact fees. The court ruled that "the necessary connection required by the Fifth Amendment is 'rough proportionality.' No precise mathematical calculation is required but the (local government) must make some sort of . . .

in many if not most places would be reduced for smaller units on smaller lots, in locations where facilities currently exist including public transit, and in configurations that economize especially on vehicular trips.

For example, a study by James Duncan and Associates for Santa Fe, New Mexico found that trips per dwelling unit rose consistently with respect to unit size, from 6.7 trips per day for two-bedroom units averaging about 1,800 square feet and 2.07 persons up to 11.93 daily trips for five bedroom units averaging 4,985 square feet and 4.06 persons. [36] Further reductions are possible when transit is accessible. In metropolitan areas without rail transit about 93 percent of all trips are done by the automobile but in metropolitan areas with rail transit the figure drops to about 75 percent.[37]

Regressivity and the Impact on Affordable Housing

A common practice has been to charge residential impact fees based on the type of residence: single-family detached, single-family attached, multi-family, mobile home, etc. This method (although much preferable to flat impact fees with no variations) implicitly assumes that the only relevant distinction among dwellings is the type of unit and that there is at least some degree of homogeneity within unit types. Both of these implicit assumptions are simply incorrect. The net effect of the unit-type approach to levying impact fees has been to ignore all characteristics other than the type of dwelling unit. The result has been that while multifamily and mobile home units tend to have lower fees than detached units, a modest single-family detached unit of 1,200 square feet will pay the same amount as a mansion of 10,000 feet or more. The problems inherent with such an approach led some jurisdictions to look for other variables that when applied can result in more equitable fee structures. Recently, several jurisdictions have set impact fees that look to the size rather than the type of unit as the basis for assessing impact fees.[38] The premise of this approach is that it is the size of the dwelling, rather than its type, that is the better predictor of impact on the need for infrastructure. Three examples illustrate the benefit of this approach.

One of the first jurisdictions to address the regressivity problem was Palm Beach County, Florida. Palm Beach County had been using a unit type approach to residential impact fees and was dissatisfied with the relative burden on that approach between less expensive and more expensive dwellings. In response, the County incorporated unit size in calculating its residential impact fees. An example is its school impact fee, as shown in Table 1-5.

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determination that the required (exaction) is related both in nature and extent to the proposed development's impact. Data such as that developed by the National Association of Home Builders reported in Chapter 5 showing the relationship between house size and occupancy (up to 3,000 or perhaps more square feet) nationally may help meet the rough proportionality test.

36 Duncan Associates, *Capital Improvements Plan for Water, Wastewater, Road, Park, Fire and Police Development Impact Fees for the City of Santa Fe*, March 2003 draft.

37 Authors' calculations based on the *Nationwide Household Transportation Survey for 2001*.

38 See J. Nicholas, "On The Progression of Impact Fees," *Journal of the American Planning Association*, Vol. 58, No.4, 1992.

TABLE 1-5. PALM BEACH COUNTY SCHOOL IMPACT FEE	
Unit Size:	Impact Fee
800 Square Feet and Under	$272.05
801 - 1,399	$557.62
1,400 - 1,999	$893.35
2,000 - 3,599	$1,259.95
3,600 and Over	$1,543.59

Had the traditional unit type approach been used, the single-family detached fee would have been $1,221. Smaller and presumably more affordable units receive a substantial reduction in the fee paid.

Miami-Dade County, Florida, also assesses its school impact fee on the basis of unit size. Rather than using size groupings, a simple formula calculates the fee based on a fixed $612 amount plus 91.8 cents per square foot of unit size:

$$\text{School Fee} = \$612 + \$0.918 * FT^2$$

Canton, Georgia recently adopted park and recreation impact fees that also use unit size as the basis for fees, as shown in Table 1-6.

TABLE 1-6. CANTON PARK IMPACT FEES	
Total Growth Cost	$42,054,887
Residential	26,094,512
Non-residential	4,349,086
Net Growth Cost*	$12,233,362
Residential	$10,485,738
New Residential FT^2	19,905,404
Cost per FT^2	$0.53
Non-residential	$2,250,246
New Non-residential FT^2	12,972,159
Cost per FT^2	$0.17
*After amount paid by taxes	

As shown in the table, the park impact fee in Canton is simply 53¢ per square foot of living area regardless of the type of dwelling. These and several other jurisdictions have been shifting away from unit type and towards assessment bases that reduce the regressivity of impact fees and properly assess fees based on impact. These attempts have been rather cautious and have tended to be incremental steps rather than giant leaps. Each jurisdiction has tended to build upon the experience of the previous one and to extend anti-regressive methodologies. Chapter Four, Impact Fees and Housing Affordability, includes a much more detailed discussion of these issues.

In summary, while impact fees appear to be here to stay, the role and scope of impact fees can continue to evolve. The task is to continue the expansion of new methodologies that satisfy the legal criteria for impact fees while accommodating both the interests of cities and counties looking to finance an ever-increasing share of capital costs and the legitimate concerns of the shelter industry for equity in the application of impact fees. This Guidebook deals with the regressivity problem and suggests methods of developing impact fees that are more equitable and, as a result, are more sensitive to the impact upon affordability.

Chapter 2 - Capital Facility and Infrastructure Financing Options

The purpose of this chapter is to discuss a range of infrastructure financing options, including impact fees, in order that the practitioner might have a more complete understanding of the options available and make informed choices. Impact fees, as well as other financing mechanisms, must be considered within the context of the local planning process. The relationship between impact fees, planning and exactions is described in Appendix A. This chapter also includes several decision guides which lay out various financing options in the form of questions, and present choices in the form of decision trees. The chapter opens with a general discussion of pricing as the underlying economic theory helps to determine the best options.

Included in this chapter is a discussion of developer exactions, special financing districts, and development taxes, as well as impact fees. Despite their differences, these alternative funding techniques all have a common theme: they shift the costs of new infrastructure from the general public to the new developments that create the need.

Principles of Efficient Facility Pricing

Economic theory supports the view that efficient pricing of public facilities alone will make land-use patterns more efficient, thereby saving resource lands for resource uses and facilitating efficient urban development. If public facilities were priced according to the costs of serving different locations, efficient development patterns would be encouraged. However, the choice of a local facility financing method affects the pattern of urban development. For example, residential density and distance from a water or sewer treatment plant influences the costs of sewer facilities and services. If the true costs of providing water or sewer service are subsidized and new development does not pay its full share of those costs, inefficient development will occur. It is "inefficient" in the sense that costs exceed benefits, which is seen in the form of infrastructure expansion and maintenance backlogs. It may also be inequitable in the sense that lower-cost development may subsidize higher-cost development.

In order to understand the efficiency and equity issues, the general nature of the costs of providing public facilities such as water and sewer services will be used to illustrate these concepts. These costs can be divided into three basic components:

The capital costs of producing the service. As a rule, these facilities, such as treatment plants, are subject to economies of scale and declining average cost. Being a function of the number of users and not necessarily distance from the facility, these costs usually are independent of residential distance away from the facilities or density of development.

The costs associated with the delivery of the service, such as sanitary sewer lines. Generally, these costs increase proportionally as distance increases. Increased residential density usually results in economies. For example, greater density allows for economies due to larger sewer pipe sizes run over shorter distances.

The short-run costs of actually producing the good; in other words, the maintenance and operation costs. These costs are incurred independent of density or distance, and are determined by actual use, such as the cost of actually processing the sewage once collected.

Average cost pricing occurs when the government charges everyone equally for the same service, regardless of the real cost to provide that service to a particular user. For example, sewer fees set on an average basis would charge connections to homes on half-acre lots five miles from the treatment plant the same as homes on 6,000 square foot lots one mile from the plant. As a result of average cost pricing, outlying developments are subsidized by other residents. Urban sprawl is encouraged when new development does not take account of the additional or marginal costs of providing service to it.

Table 2-1 illustrates this situation using actual figures from Loudoun County, Virginia, in 1984.[39] Notice that if all development is charged the same for service, some developments effectively subsidize other developments. If subsidized development is actually occupied by households that are more affluent than development being overcharged, there is also an inequity created. Unfortunately, Loudoun County is not at all an isolated example of this kind of inefficiency and inequity.

TABLE 2-1. ANNUAL CAPITAL FACILITY AND SERVICE DELIVERY COSTS 1,000 HOUSING UNITS CONSTRUCTED AT DIFFERENT DENSITIES, LOUDOUN COUNTY, VIRGINIA

[Prototypical communities of 1,000 units, 3,260 residents and 1,200 students.]

Facility Cost Category	Rural Low-Density *1 du/5 acres*	Rural Cluster *1 du/acre*	Moderate Density *2.67 du/acre*	High Density *4.5 du/acre*
Costs that vary with density	$4,052	$3,609	$2,621	$2,555
School operating costs	$3,046	$3,046	$2,256	$2,256
School transportation costs	$187	$153	$67	$33
Road maintenance costs	$110	$55	$38	$26
Water, sewer operating costs	$709	$355	$260	$240
Costs that do not vary with density	$908	$908	$908	$908
Public schools capital costs	$243	$243	$243	$243
Law enforcement	$165	$165	$165	$165
Fire/rescue services	$58	$58	$58	$58
Health/welfare services	$295	$295	$295	$295
General administration	$147	$147	$147	$147
Total Annual Costs	$4,960	$4,517	$3,529	$3,463

Source: Smythe and Laidlaw 1986. Figures not adjusted for inflation.

Public finance economists advocate marginal cost pricing, the cost of producing one more unit of output, in the form of a three-part tariff as an alternative to average cost pricing. One part of the tariff would be a charge for the costs of the capital facility used to produce the good, such as the cost of building a water or sewer treatment plant. This charge is a flat fee per connection since these costs do not vary by density or distance, although the charge may vary by size of connection to reflect approximate variation in treatment-plant capacity that must be reserved for that use.

The second part of the tariff is a charge for the costs of delivering the service, such as the cost of extending sewer lines to the house. It is a flat rate per house based on the average cost of extending a sewer line to

[39] Robert B Smythe and Charles D. Laidlaw, "Density-Related Public Costs," American Farmland Trust (Washington D.C.), 1986.

that and other homes in the same subdivision. The longer the sewer line and the lower the density, the higher the charge.

The third part of the tariff is a charge for actual use, based on the short-run costs of producing the service. It is a charge on the per-unit cost of providing potable water or processing sewage. A sewerage charge could be based on the volume of sewage passing out of the home and into the sewer line. More typically, it is based partly on the volume of water passing through a water meter into the home.

Planners argue that costs associated with lower-density development patterns may be reduced if facility-use was charged based on the three-part tariff. More-distant and less-dense development would only occur if its expected benefits to both developers and purchasers exceeded its additional or marginal costs to the public. Developers would not build and purchasers would not buy homes in inefficient developments since the charges would price such development out of the market. Under this theory, the primary task of planners is simply to determine the location of central facilities such as water and sewer plants and then price their use according to the three-part tariff. The market would then dictate appropriate land-use patterns. Although this discussion is simplistic, it does convey that marginal cost pricing can force developers to take account of all the fiscal costs and benefits of development before they try to have their plans approved.

The key question is, why is marginal cost pricing not being used, and why instead do communities look to rather inefficient growth controls? One reason is that the costs of developing and implementing a more accurate pricing system are high. It is a much more difficult technical task to determine marginal versus average-cost pricing systems. In a perfect situation, the marginal costs of serving each development and the extent of facility use by each household would be calibrated and assessed. In practice, this is beyond the technical capacities of most local governments. Even calculating marginal costs by area, such as for neighborhoods or sewage drainage basins, is difficult to understand and explain making adoption and implementation unlikely.

Another reason is that political costs are high. Communities may choose not to employ marginal cost pricing because they do not want to discriminate among members of the community, especially if the community is homogeneous in many respects. For example, if cost pricing is based on geographic service areas, then boundary lines must be drawn, and it is often difficult to convince people near the boundary that their cost of service is significantly higher than their neighbor's on the other side of the line. Many communities apply only a flat charge for residential water, regardless of the distance a home is from the supply or how much water is consumed. Such policy may seem fair; all residents have equal access to the facility and are free to consume what they need. To such communities, it does not matter that some may use more or less than others. It also is the situation that in most communities taxes on commercial and industrial enterprises subsidize residential public services. Marginal pricing would mean sharing this subsidy with new residents and thereby reducing the welfare of existing residents.

General Financing Options

There are five very broad ways to raise revenue for public facilities: general taxes, dedicated taxes, special assessments, user fees, and impact fees. There are certainly more categories that may be considered (such as federal and state grants and low-interest loans, charitable donations and lotteries), but this section focuses on the principal revenue sources available to most, albeit not all, local governments. Each is discussed below.

General Taxes. In the past general taxes, particularly property taxes, funded all infrastructure. Given the need of localities to now limit general taxes, such taxes today are most appropriate where there are exclusivity and free-rider issues, such as in parks and public safety, and where the general public well-being is enhanced, such as education and libraries.

Dedicated Taxes. A good example of a dedicated tax is the gasoline tax where revenues go exclusively for enhancing roads (including in some instances transit), normally under the argument that higher transit use preserves road capacity. There are examples of other dedicated taxes, such as California's per-square-foot tax on new buildings to help finance local schools, and Florida's real estate transfer tax where a share is dedicated to acquiring environmentally sensitive land by the state.

Special Assessments. In Texas, Municipal Utility Districts are often formed by private developers then turned over to local government to charge property within master-planned communities for the cost of installing and maintaining infrastructure within and, in some cases, outside the community. This is also the case with many developments-of-regional-impact in Florida. Indeed, the fastest growing segment of governance nationally is in the formation of special districts which usually serve the sole function of providing and maintaining infrastructure, as shown in Table 2-3. Special districts will be discussed in the next section.

User Fees. User fees are the most direct way in which to connect the benefit of the service to those who pay for it. Water and wastewater meter connections and subsequent charges by volume of use may be the best example of such a direct connection, because if one does not pay to connect to public water one does not receive it. Indeed, some of the earliest court cases surrounding impact fees related to that portion of the water and wastewater connection fee used to finance capital expansion.

Impact Fees. Impact fees are an attempt to generate revenue where general or dedicated taxes/assessments cannot cover all the capacity expansion costs. These are differentiated from user fees because they are, in effect, a reservation capacity fee – they provide the facility capacity whether or not those who paid actually use that capacity at any given point in time. Also, unlike user fees, they are directly tied to planning in that they are used to help finance a local capital improvement program that itself implements overall community planning objectives.

Public finance criteria indicate that for most facilities impact fees may be inappropriate for a variety of economic efficiency and social welfare reasons. Only water and wastewater facilities would seem to be appropriate facilities for which impact fees should be assessed. Other facilities, such as public safety, parks, libraries, and schools, are best financed through general funds and debt retired through general obligation bonds. Roads are financed best from user fees and dedicated taxes. Yet, impact fees are used to help finance all these and other facilities by an ever-increasing number of communities.

Table 2-2 summarizes the nature of facility financing in terms of the economic variables that should be considered in selecting financing: marginal cost, scale economy, exclusivity, and price elasticity of demand. The rightmost column identifies the most rational choice on pure economic grounds, without consideration for local conditions.

TABLE 2-2. ECONOMIC CHARACTERISTICS AND PREFERRED FUNDING FOR SELECTED MAJOR FACILITIES

Facility	Marginal Cost Characteristic	Scale Economy	Exclusivity	Demand Elasticity	Preferred Capital Expansion Financing
Water	Lumpy for central facilities	Large	Exclusive	Low	*Impact Fees*
Wastewater	Lumpy for central facilities	Large	Exclusive	Low	*Impact Fees*
Stormwater	Lumpy for central facilities	Large	Nonexclusive	Low	*Special assessment based on impervious surface*
Parks	Lumpy for major parks, relatively smooth for smaller parks	Small to moderate	Nonexclusive	Moderate	*General taxes*
Recreation Centers	Lumpy for most	Small to moderate	Can be exclusive	Moderate	*General taxes and user fees*
Library	Lumpy	Small to moderate	Nonexclusive	Moderate	*General taxes*
Fire	Lumpy for central facilities, moderate for stations, smooth for vehicles	Small	Nonexclusive	Low	*General taxes*
Police	Lumpy for central facilities, moderate for precincts, smooth for vehicles	Small	Nonexclusive	Low	*General taxes*
Emergency Medical	Lumpy for central facilities, moderate for stations, smooth for vehicles	Small	Nonexclusive	Low	*General taxes*
Highways	Lumpy for most, smooth for local streets	Large to moderate	Exclusive through tolls	High	*Dedicated taxes and tolls*
Schools	Lumpy	Small to moderate	Nonexclusive	Moderate	*General taxes*
Colleges	Lumpy	Large	Exclusive through tuition	Moderate	*User fees (tuition) and general taxes*
Transit	Lumpy	Large	Exclusive through fares	High	*User fees (fares) and general or dedicated taxes*

For the most part, impact fees do not appear to comport with public finance principles as they relate to capital financing. Yet, there is a growing use of impact fees to build new parks, libraries, public safety

facilities, schools, and roads – all facilities that are better-financed from other means. Why is this? The next section reviews the practicalities of employing some development or project-specific alternative financing mechanisms to see why impact fees are gaining popularity.

Principal Revenue Methods

Although there are numerous financing alternatives available, discussion in this section is limited to the following three broad categories:

Developer Exactions;
Special Assessment Districts; and,
Impact Assessments

The principal alternatives within each category are reviewed first and then assessed relative to policy-making criteria which will be introduced later.

Developer Exactions

Developer exactions are generally defined as the private provision of land or facilities to serve public infrastructure needs created by new development; they are made as a condition of development approval. In some states, private contributions must be “volunteered” (often not truly voluntary) by the developer and are referred to as "proffers." Note that impact fees are not considered a developer exaction per se but instead fall into the "impact assessment" category.

In most communities, developers are already required to construct at their own expense and dedicate to the local government all public improvements within a subdivision that are designed to serve only that subdivision. These internal improvements, which must be constructed to standards set by the local government, typically include local streets, sidewalks, water distribution lines, wastewater collection mains, and storm sewers.

Clearly, however, the improvements within a subdivision are only a part of the total public improvements that are needed or affected by a new subdivision. Off-site facilities such as schools and parks typically serve residents of a number of different subdivisions. Streets in new subdivisions will always connect to a network of collector and arterial roads outside the subdivision. Similarly, most subdivisions tie into larger networks of water, wastewater, and stormwater systems.

Typical exactions include the dedication of park land, school sites, and road rights-of-way. In addition to the dedication of land, developers may be required to construct public facilities, such as widening the portion of a substandard street on which the development has frontage, or installing a traffic signal at a nearby congested intersection. Finally, exactions may take the form of monetary contributions, such as fees in lieu of dedication, or developer participation in a pro rata share of the cost of installing a traffic signal.

Monetary exactions are superficially similar to impact fees. Indeed, fees in lieu of dedication are a direct precursor of impact fees. The distinction lies in the manner in which the fee is assessed and the purposes of the fee. In-lieu fees are usually based on land costs only and are ill-suited for public services not requiring extensive amounts of land. Impact fees, on the other hand, are designed to cover a proportionate

share of the capital facility costs and may be applied to a wider variety of services. Monetary or in-kind exactions other than land are typically site-specific and often negotiated on a case-by-case basis, whereas impact fees are based on a general formula that applies equally to all developments.

In general, exactions fall into two broad categories: mandatory land dedication requirements and negotiated exactions. A major limitation common to both types of exactions is that they tend to address only those public improvements that are either on-site or in close proximity to the development. Such needs as roadway systems to relieve congestion or treatment plants to relieve the overloaded are generally beyond the power of an individual developer to address through the exaction process.

Mandatory Dedication Requirements. Mandatory park or school dedication requirements with in-lieu fee provisions typically apply only to residential subdivisions and are based on the number of dwelling units proposed. Requirements based on a percentage of site area have been overturned by the courts, since they do not recognize the differing service demands created by low- and high-density developments. Land dedication usually is required at the subdivision stage of the development process.

Land-dedication exactions have the advantage of being closely related to on-site needs created by new development. They have a long history of use and are generally accepted as legitimate exercises of local police power. They treat all residential subdivisions similarly and are relatively simple to administer.

A major drawback, however, is that land dedication only covers the cost of land and makes no contribution toward the cost of new capital improvements required by new development. In addition, since they are generally administered through the subdivision ordinance, developments not requiring land subdivision, such as apartments or previously platted land, are often exempted from the requirements.

Negotiated Exactions. Monetary or in-kind exactions are generally the result of open-ended negotiations between the developer and the local government, rather than from the application of a previously defined methodology. They may be imposed at any stage of the development process, particularly during requests for regulatory approvals such as zoning, special permits, or planned unit developments, where the local governing body has broad discretionary authority. Such exactions typically involve public improvements in close proximity to the development.

While negotiated exactions are standard procedure in many communities, they are tightly regulated in some states. In North Carolina and Virginia, for example, the state governments have authorized two kinds of zoning districts: general-use districts and conditional-use districts. Local governments cannot require developer contributions as a condition of granting general-use zoning, and can accept proffers only when conditional-use zoning is requested. In Virginia, jurisdictions outside of Northern Virginia and the Eastern Shore that have not been expressly granted conditional zoning authority are severely limited by the types of proffers that may legally be accepted.

In comparison with land-dedication requirements, negotiated exactions may cover the capital cost of public facilities in addition to land costs. Since such exactions are based on the specifics of an individual development proposal, they can address public-facility improvement needs, such as driveway turning lanes, that are directly related to the development.

Another drawback of negotiated exactions is that they lack the attributes of predictability and equity that gained park dedications their early and wide acceptance. The amount of the exaction may depend on

accidents of geography, such as the amount of land owned by a developer that happens to coincide with right-of-way needs, or on the political or bargaining skill of the applicant. Small developments, although they may cumulatively result in the need for significant capital improvements, often escape such exaction requirements because individually they are not capable of making significant contributions. Negotiations are often time-consuming and expensive for both the developer and the local permitting authority. Roadway exactions, for example, may be based on a traffic impact study required for each major development project.

Development Agreements. A variant of both of these approaches is the development agreement that is negotiated between the developer and the local government. Unlike mandatory dedications and negotiated exactions, development agreements cover a broad range of facilities (and other issues), provide for timing, phasing, and financing schedules, establish obligations of both parties, and help to settle issues that may otherwise have emerged in the future. Once in place, development agreements provide certainty to both the developer and local government on what to expect as the project builds out. Development agreements are widely used throughout California and Florida, and are increasingly seen in other growing states (Porter and Marsh 1989).

Special Assessment Districts

While developer exactions may be gaining in popularity, they do have their limitations. Exactions are only one-time assessments usually dedicated to capital improvements. As such, developer exactions have little relationship to maintenance and operating expenses, and they do not aid in the process of getting existing development to contribute its proportionate share of capital improvements. Special assessment techniques reviewed here help solve this problem. Many local governments will use both developer exactions and special assessment programs.

Special assessment districts are the broad title that includes local improvement districts, municipal utility districts, and other sub-jurisdictional entities whose purpose is to finance and often maintain capital facilities to accommodate growth and development. They are commonly characterized as geographic areas within which fees or taxes are collected (in addition to jurisdiction-wide general taxes) to fund capital investments or special services that clearly benefit properties within the district. The distinctive feature of special assessment districts is the very close and visible tie between the facility constructed or maintained and those who benefit from and pay for it. Unlike other financing options that target new development to pay for a share of communitywide improvements, special assessment districts assess all properties in a defined area for the range of facilities being provided. Assessments can finance debt service needed to provide the initial capital facilities and subsequently finance operations and maintenance costs. It is perhaps for this reason that they are the largest growing segment of American government. Table 2-3 reports the change in government units by type for the period 1972 through 2002.

TABLE 2-3. GOVERNMENT UNITS: 1972 - 2002[40]

Type of Government	1972	1982	1992	2002	Change From 1972	Percent Change
Federal	1	1	1	1	0	0.00%
State	50	50	50	50	0	0.00%
County	3,044	3,041	3,043	3,043	(1)	-0.03%
City	18,517	19,076	19,296	19,431	914	4.94%
Township	16,991	16,734	16,666	16,506	(485)	-2.85%
School District	15,781	14,851	14,556	13,522	(2,259)	-14.31%
Special District	*23,885*	*28,078*	*33,131*	*35,356*	*11,471*	*48.03%*

Special assessment districts are attractive for several reasons. They shift the burden of infrastructure finance from the general public to properties receiving direct benefit, while avoiding the short-term time horizon of purely private infrastructure provision. Property owners are assured that their additional taxes or fees will be spent in a manner that will benefit them, with a more single-minded focus than is characteristic of general-purpose government activities. Most states permit the creation of local improvement districts with the approval of the majority of property owners within the district. In Florida, the developer can unilaterally impose a local improvement district on all development subject to approval by the governing body. In Texas, "municipal improvement districts" serve the same function and are often tied to eventual annexation to a nearby city if the development is outside the city limits. In most cases, once the district is created, participation is mandatory for all property owners. An exception is Colorado, which permits the creation of special districts with voluntary participation of property owners within the district.

Assessments within special assessment districts are based on attributes of property--such as property value, parcel size, street frontage or use--assumed to be directly proportional to benefits accruing to property owners. However, the basis and level of assessments may vary within the district. For water and wastewater, utility assessments can reflect use. For drainage, stormwater assessments can be based on impervious surface area. For roads, assessments are often based on road frontage. For all other facilities, assessments can be based on value.

Special assessment districts have the ability to assess both existing development and vacant land in the immediate vicinity of the capital improvement. Particularly in local improvement districts with a considerable amount of existing development, revenue streams are more predictable than those of impact fees, development taxes, and developer exactions, which are dependent on development cycles. One concrete advantage resulting from the greater predictability of the revenue stream is that bonds can be issued by pledging to levy assessments necessary to repay the bonds.

Once established to provide infrastructure services, special assessment districts often operate outside the public spotlight that is focused, in most communities, on elected general governments. The proliferation of special assessment districts can weaken the authority of general governments to deal effectively with growth and to govern in the comprehensive way that they should. Widespread use of such districts can create a confusing hodgepodge of overlapping, independent taxing and assessment jurisdictions that lack the visibility and accountability, as well as the ability to coordinate different activities that characterize

[40] Census Bureau, 2002 Census of Governments, CGO2-1(P), July 2002, accessed January 22, 2005 from http://ftp2.census.gov/govs/cog/2002COGprelim_report.pdf

general-purpose governmental entities. Appendix B reviews details of a typical special assessment district process from the State of Washington.

Tax Increment Financing. A variant of special assessment districts is tax increment financing (TIF) districts. They differ from other special financing districts in that no special fees are assessed in addition to jurisdiction-wide taxes. District revenues consist of a diversion of that portion of revenues attributable to new development within the district. District revenues are used to retire bonds that finance the initial improvements that stimulated the new development. It is this internal financing, or bootstrap redevelopment, approach that accounts for much of the popularity of the TIF technique.

TIF is particularly attractive to cities because other taxing authorities, such as counties and school districts, may be required to contribute to the redevelopment fund, and that fund is ordinarily under the control of the city or its redevelopment agency. In theory, the other jurisdictions do not lose revenue because there would be no growth in the TIF district's tax base without the stimulating public investment. Even if this were true, however, the development attracted to the TIF district might have otherwise occurred elsewhere in the region.

Impact Assessments

Impact assessments are scheduled charges made against new development for the purpose of financing public facilities. Impact fees are obviously included in this category, but so are impact taxes and dedicated real estate transfer taxes.

Impact Taxes. A development impact tax, also called an improvement tax, is a tax on new construction, usually assessed at the time of application for a building permit. Impact taxes are generally based on the value of new improvements, and tend to be more popular than other kinds of taxes because they are levied on new construction rather than existing development. However, re-roofing, remodeling, and alterations to existing structures are also subject to such a tax. Even in a high-growth community like San Jose, California, over one-third of total building permit valuation is for such remodeling activities.

Unlike impact fees, impact taxes need not be based on the cost of facilities needed to serve the development, and the special studies required to justify impact fees are not required. In addition, revenues from such taxes may be spent in any way the local jurisdiction sees fit, subject to the provisions of state enabling legislation.

Impact taxes are not widely used. One exception is California; since passage of Proposition 13 in 1978, which limited local government revenue substantially, many California communities have resorted to impact taxes as a way to finance public facilities. The legislature also enabled impact taxes for schools affecting all new development, not just residential. California is not alone. Oregon enables local governments to impose a transportation impact tax, and Tennessee enables an “adequate public facilities” tax, as needed, to match infrastructure to new development demands.

Real Estate Transfer Taxes. Real estate transfer taxes are levied on real estate transactions. While impact taxes are generally based only on the value of new improvements, real estate transfer taxes are assessed on sales price, which includes the value of both land and improvements. As with all taxes, real estate transfer taxes cannot be adopted by local governments without state enabling legislation. Real estate transfer taxes are not dependent on new development, but rather on an active real estate market.

Transfer tax revenues are more predictable than revenues from impact fees or exactions and hence more suitable for bond financing. However, to solve infrastructure problems, there must be an explicit dedication of such taxes for infrastructure. In addition, if the real estate transfer tax is applied to all transactions including resales of existing homes, it would have a markedly different incidence than a program of developer exactions or impact fees.

Impact Fees. Impact fees (also known as development impact fees, system development charges, and connection charges) are charges levied on new development to pay for the construction of off-site capital improvements that benefit the contributing development. Impact fees are typically assessed using a fee schedule that sets forth the charge per dwelling unit or per 1,000 square feet of nonresidential floor space. Impact fees are one-time, up-front charges, with the payment usually made at the time of building permit approval, although some jurisdictions allow extended payments over a period of years.

Impact fees are a political response to the notion that development should pay its own way. In some communities, impact fees are actually considered a pro-growth tool because of their ability to defuse rising no-growth sentiments, ensure facility adequacy, and facilitate development approval. In addition, because they are typically used as a replacement for negotiated exactions, impact fees add speed and predictability to the development process. Impact fees are also more equitable than informal systems of negotiated exactions and are likely to generate considerably more revenue.

Impact fees can be used to fund a wider variety of services and types of facilities than is possible with exactions or special districts. Unlike dedication requirements that cover only land costs, impact fees can be used to cover the full capital cost of new facilities. Impact fees can also be structured to require new development to buy into service delivery systems with existing excess capacity, thus recouping prior public investments made in anticipation of growth demands. Recoupment of prior investments is generally not possible with other types of exactions.

The requirement that impact fees be spent to benefit the fee-paying development is typically met by earmarking revenues for expenditure in the zone in which they are collected. The requirement that fee revenues be spent within a reasonable period of time following fee payment imposes an additional constraint. However, proper design of benefit zones, provisions for pooling revenues from adjacent zones, and supplementing impact fee revenues with funds from other sources can overcome obstacles to successful fee implementation.

Sometimes impact fee revenue is pledged to support bonded debt service incurred to provide facilities needed to accommodate growth. In these cases bond covenants may call for using impact fee revenue first for this purpose, but to assure timely and adequate payment of debt service the fiscal base of the community is also pledged to the extent needed.

The primary strengths of impact fees include applicability to a wide range of public services, ability to promote efficient development patterns, predictability for public and private sectors, acceptability due to a clear linkage with the needs of new development, and some ability to help with bonded debt service. Their limitations weaknesses include inability to fund operating costs, lack of expenditure flexibility, and dependence on construction cycles.

Policy-Making Criteria

Each alternative likely has its own limitations, so how does one know which is best from the perspective of local government's need to meet facility financing needs and society's interest in supporting housing affordability? The following sections identify certain policy-making criteria and apply them to a comparative assessment.[41]

Revenue Potential. Any financing scheme must generate sufficient revenue to meet needs. In this context, however, revenue potential means the ability to generate revenue roughly concurrent with the development as well as the ability to use the revenue as supplemental security for general obligation and revenue bonds and for certificates of participation that are used to finance large-scale improvements meeting present and future needs. Finally, revenue potential means the ability to have all development contribute revenues, not just certain development under certain conditions.

The chief limitation of *developer exactions* is that only development triggering these actions pays and payment is usually limited to what is negotiated. For example, *mandatory dedications* address only a limited range of facilities, usually school and park land, and affect only new subdivisions and, often, only those exceeding a certain size. Although in-lieu fees for land dedication are common, our research indicates in-lieu revenues are insufficient to provide land of suitable quality at other locations. *Negotiated exactions* and *development agreements* can address a broader range of facilities including funds for them. Developer exactions as a class are poorly to moderately able to generate the revenue needed.

Impact assessments may be better able to generate the revenue needed because the base includes all new development. Here, however, *development taxes* are not widely used and are usually limited to a small range of facilities. On a practical level, *real estate transfer taxes* will not solve infrastructure financing problems unless they are dedicated to that purpose, because otherwise they will quickly be spent on other needs and the infrastructure financing problems will remain. *Impact fees* are seen as having the broadest base of dedicated revenue for new facilities of the three alternatives, but even here state statutes can limit impact fees to a small range of facilities. New Mexico, for example, does not allow impact fees to be assessed for schools, libraries, and community centers, and Georgia does not allow impact fees for transit.

Local improvement districts have potentially the greatest power of all financing mechanisms to generate revenue to finance capital expansion needed to accommodate development, but they often cannot finance off-site facilities impacted by the development they serve.

Proportionality. This is the connection between the demand for facilities created by new development, the cost of meeting those demands, and the extent to which the alternative apportions those costs to new development. Proportionality can also mean geographic equity and housing affordability if costs vary appropriately, but these two issues are separately discussed below.

Proportionality relates to equity, but equity comes in two broad forms: horizontal and vertical. Horizontal equity means essentially that similarly situated people will be treated similarly. Impact fees have survived challenge on this charge because at their simplest they meet this equity principle. Vertical equity considers differences within the same class based on objective measures or criteria. The trouble is that impact fees can be horizontally equitable but vertically inequitable. For example, under horizontal equity all dwellings

[41] This scheme was initially devised by Dr. Arthur C. Nelson and James B. Duncan for application to Hickory, North Carolina and has since been adapted by Duncan & Associates for use in numerous other communities.

would be assessed the same impact fee for parks. If dwelling units differ by the number of people living in them based on type or size of dwelling then vertical equity is not achieved. Federal data show, for example, that in 2003 the average household size of units less than 500 square feet was nearly 2.0 while for units over 2,500 square feet it was more than 3.0. Charging each unit the same means that the smaller unit over-pays with respect to its occupancy level while the larger unit under-pays.

In reviewing the options that are available against the criterion of proportionality, *developer exactions* are poor methods by which to assure proportionality. There exists some potential to achieve this in *development agreements* and, to some extent, in *negotiated exactions,* but our collective experience is that proportionality is a secondary concern to primarily mitigating impacts of new development. Moreover, not all development is subject to developer exactions. Among the *impact assessment* mechanisms, *impact taxes* and *real estate transfer taxes* are not required by law to be proportionate, but this is the very underpinning of *impact fees*. *Local improvement districts* are probably proportionate since all costs are internalized and apportioned usually based on some formula, but since they do not usually address off-site impacts, proportionality overall is not likely achieved.

Geographic Equity. This issue results from the fact that some areas are more costly to serve than others. This is one area where marginal cost pricing can become an element of policy-making even where the political will to charge prices based on marginal cost may not otherwise be present. An element of geographic equity is infill and redevelopment, since we often find older areas have excess infrastructure capacity (such as under-utilized schools). Even where the infrastructure needs to be upgraded, the cost can be less per unit of development if infill and redevelopment is encouraged.

It is difficult to presume that any *developer exaction* alternative by its design attempts to achieve geographic equity. The same can be said for *local improvement districts*. Neither *impact taxes* nor *real estate transfer taxes* are sensitive to geographic equity. Only *impact fees* have this potential and, while not widely used to achieve this form of equity, they are becoming more common across the country.

Administrative Ease. This factor refers to whether an alternative can be administered efficiently, and whether compliance can be achieved at reasonable cost.

Developer exactions are costly on local governments in two respects: first because such exactions typically engage local government and attorneys on all cases involving exactions; second because revenue generated (or its in-kind value from dedications) comes only from affected development. Moreover, developer exactions normally do not generate adequate revenue to compensate for the cost of processing them.

Impact assessments and *local improvement districts* are quite efficient in achieving their purposes. *Impact taxes*, *real estate transfer taxes*, and *impact fees* are assessed and collected easily through standard government processes. *Local improvement districts* are like developer exactions in that they involve usually extensive negotiations between the parties, but the result is a stream of revenue some of which may be used to offset the local government cost, and the continuing revenue supports development-specific infrastructure.

Public Acceptance. Above all, the alternative policy must have the potential for receiving broad public acceptance. In our view, this means that current taxpayers/ratepayers will not face higher taxes or rates for the benefit of new development, both in the near and long terms.

Most of these alternatives enjoy broad public acceptance. The *real estate transfer tax* may not enjoy a broader base of support since anyone selling property has to pay it, and almost everyone sells some property in his or her life. *Developer exactions* may allow citizens a chance to extract concessions but only on the most visible proposals. *Impact taxes* and *impact fees* probably have broad public appeal, but because impact taxes are not as widely used (perhaps because of the word "tax"), impact fees by default are probably more widely accepted.

Housing Affordability. This criterion relates to the ability of any alternative to be created or calibrated to reflect differences in facility cost by size and type of housing unit (proportionality), as well as the ability to offset costs for certain housing based on ability to pay.

None of the *developer exaction* alternatives are explicitly sensitive to housing affordability. *Development agreements* may include housing affordability features, but only on a case-by-case basis. Except for assessing residential development based on type and size of unit, *local improvement districts* are not explicitly sensitive to housing affordability. *Impact taxes* are usually based on house size so they appear to address housing affordability indirectly; similarly, *real estate transfer taxes* based on property value only address affordability implicitly. *Impact fees* have the greatest potential for being designed to minimize effects on housing affordability and can include provisions to waive fees altogether, as most impact fee enabling statutes provide.

Table 2-4 summarizes these alternative financing mechanisms in terms of these criteria.

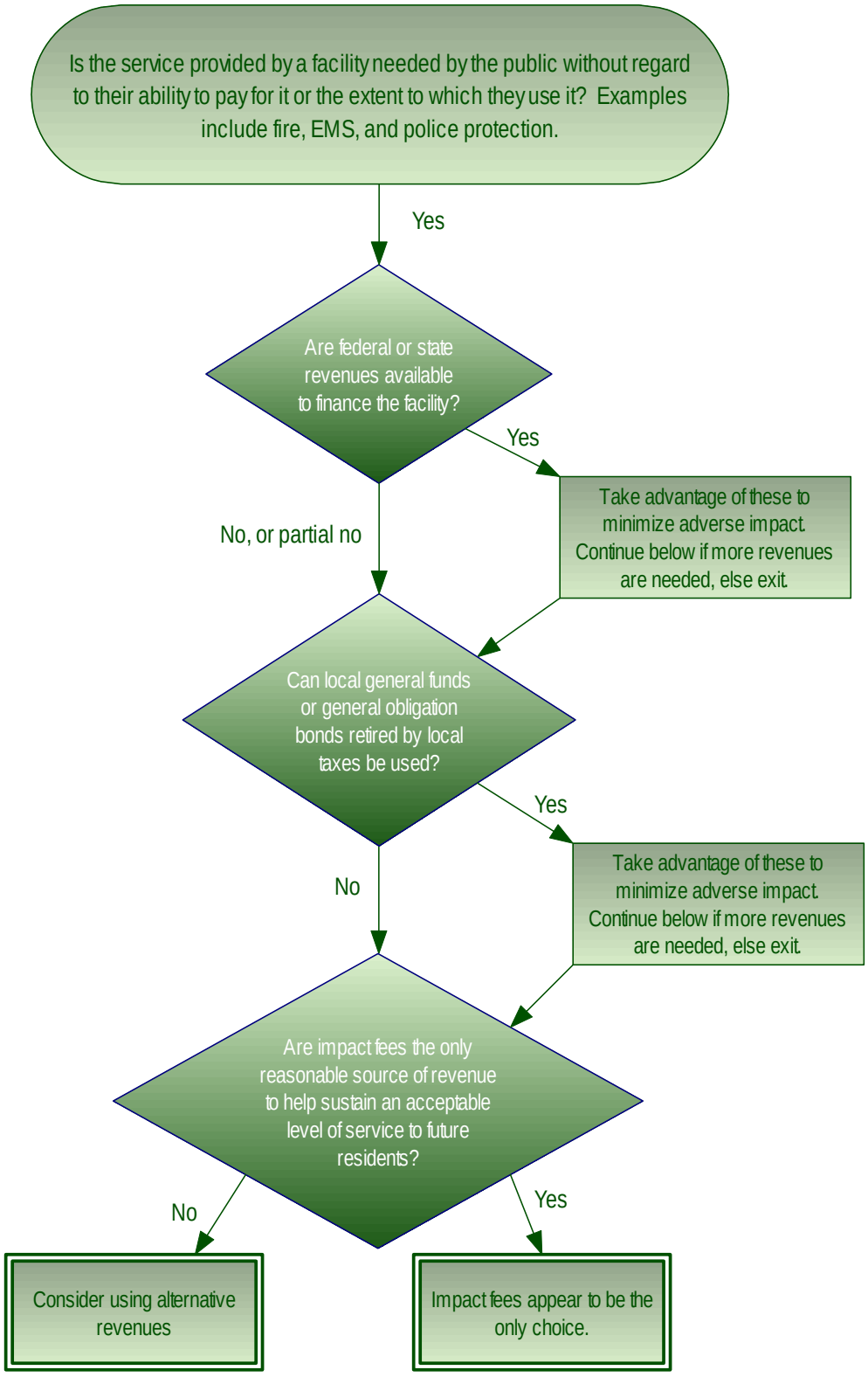
TABLE 2-4. SUMMARIZING THE POLICY-MAKING ISSUES OF ALTERNATIVE FINANCING MECHANISMS

Mechanism	Revenue Potential	Proportionality	Geographic Equity	Administrative Ease	Public Acceptance	Calibrated to Reflect House Impact Differences
Mandatory Dedications	Low – Usually applies to subdivisions.	Low – Often based on how much can be exacted in ad hoc negotiations.	Low – Exaction does not vary by geographic need.	Moderate – Features of actual dedications (such as location of park dedication land) can be disputed.	High – Affects only new development.	Low – Essentially a flat fee type of exaction.
Development Agreements	High – Can internalize project costs and fund off-site externalities.	Low – Often based on how much can be exacted in ad hoc negotiations.	High – Can take account of geographic variations.	Low – Often requires complex & expensive negotiations.	High – Affects only new development and can lead to more concessions than other exactions.	Low – Based only on an ad hoc negotiation that need not consider.
Impact Taxes	Moderate – Usually based on statutory limits.	Low – Based usually on statutory limits.	Low – Assessed without respect to geographic variations.	High – Usually based on simple assessment and collection procedures.	Moderate – Existing residents may pay when they buy a new home.	Low to Moderate – Usually based on value or a flat fee per unit.
Impact Fees	Moderate – Only based on difference between available revenue and revenue needed.	High – Legal standards require it.	High – Based on service area design which varies based on geographic differences.	High – Usually based on simple assessment and collection procedures.	Moderate – Existing residents may pay when they buy a new home.	Moderate to High – Can be designed to reflect differences in impact based on house occupancy characteristics.
Real Estate Transfer Taxes	Moderate – Limited to real estate sales and subject to statutory limits.	Low – Based on value but not on proportionality of impact.	Low – Assessed without respect to geographic variations.	High – Usually based on simple assessment and collection procedures.	Low to Moderate – Existing residents may pay when they buy and sale homes.	Moderate – Based on value which can reflect house impact differences.
Local Improvement Districts	Low – Limited usually to project and does not include development outside districts.	Moderate – Can be designed reflecting proportionate impacts and benefits but often not.	High – Can take account of geographic variations.	High – Usually based on simple assessment and collection procedures.	High – Affects only new development.	Low – Not usually designed to reflect differences in impact based on house occupancy characteristics.

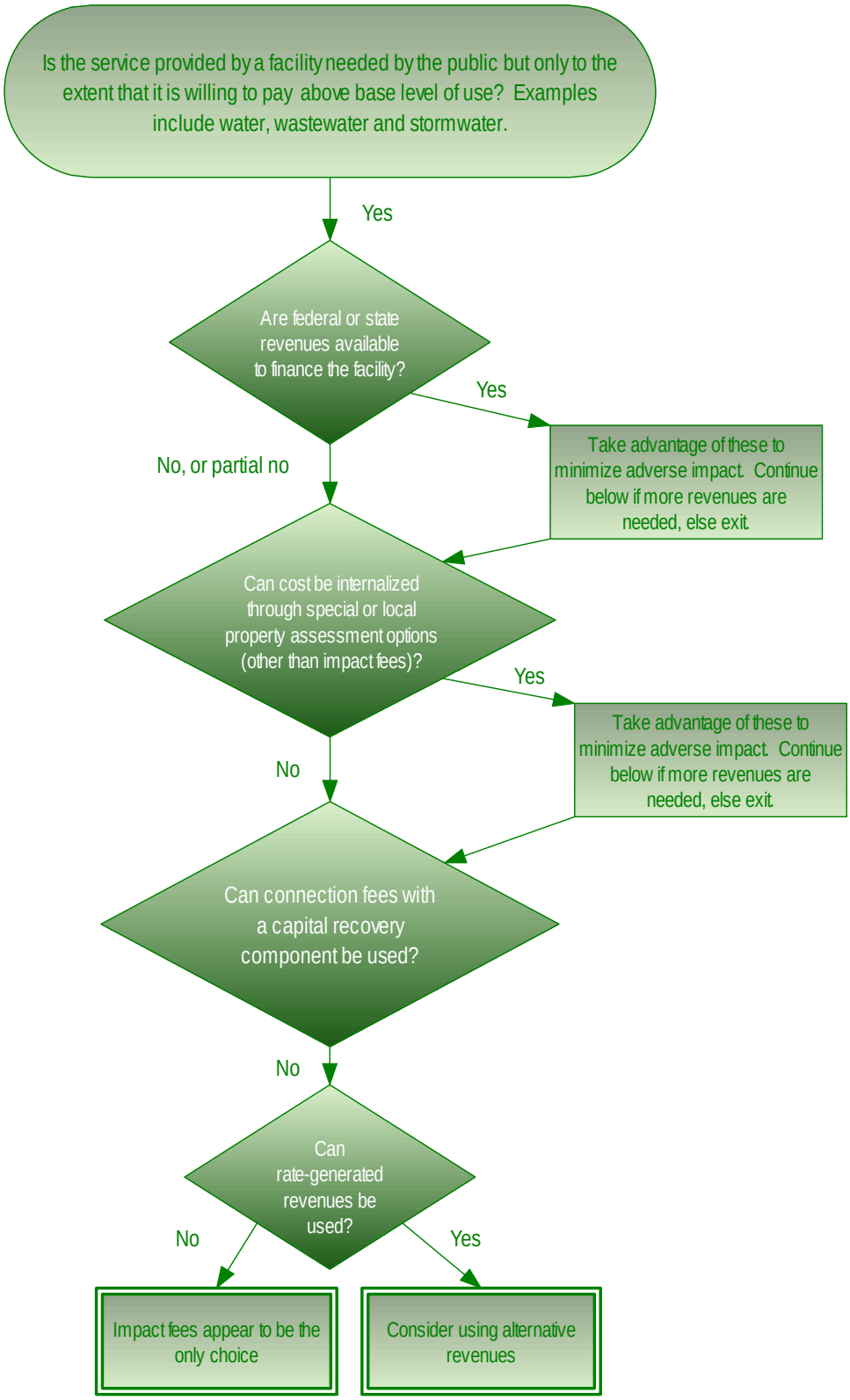
Alternative Funding Decision Charts

For a variety of political, legal, and pragmatic reasons impact fees are often seen as the most flexible option to address facility financing needs even though for the most part other funding alternatives may appear superior. Nonetheless, it is important to consider alternatives first to be sure that the impact fee choice is the best available option. The decision charts for specific facilities that follow are designed to help practitioners make rational decisions on potential funding mechanisms and consider if impact fees meet their needs. They should be used as a guide in the decision-making process.

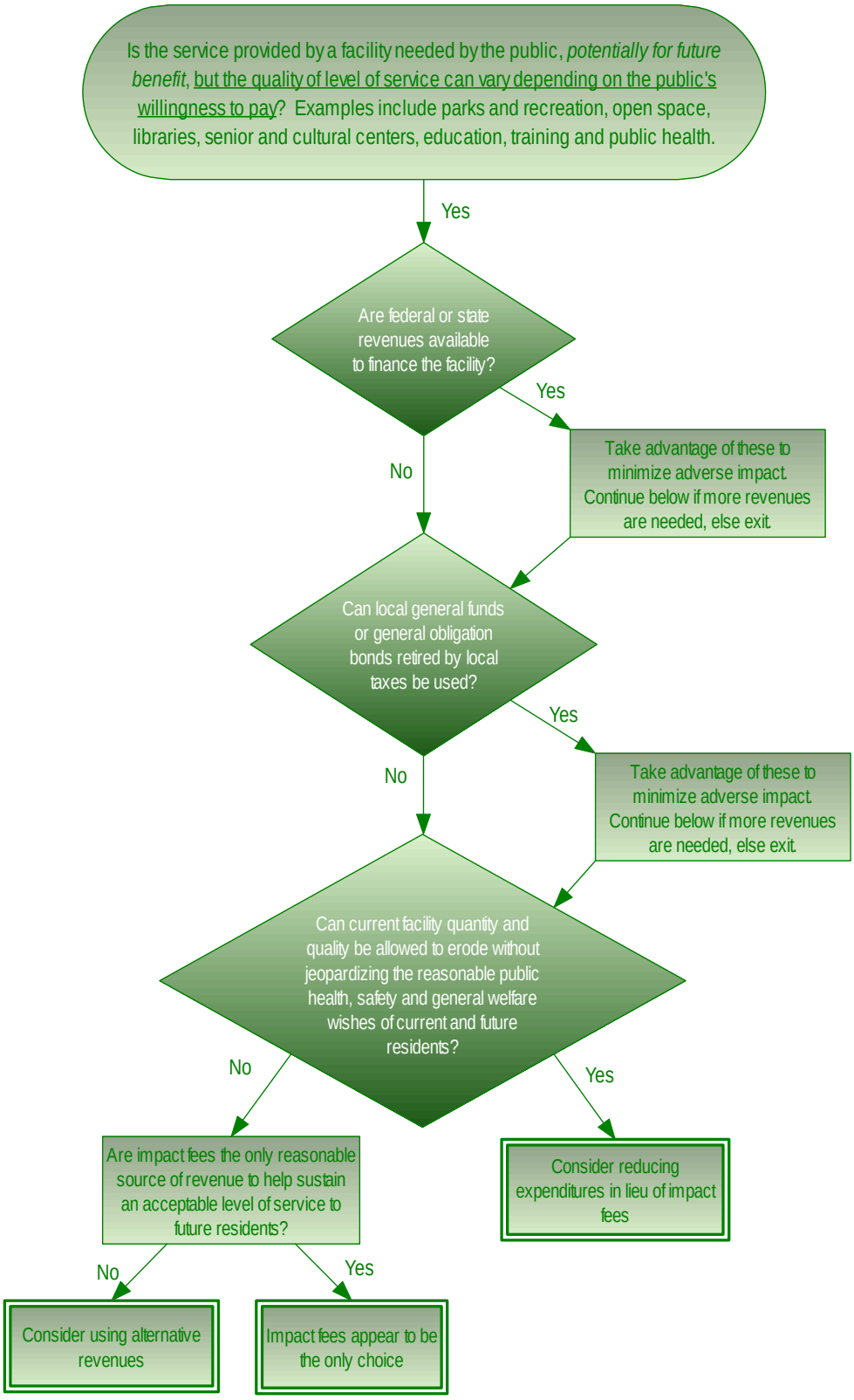
Decision Chart 2.1 Public Safety Facilities



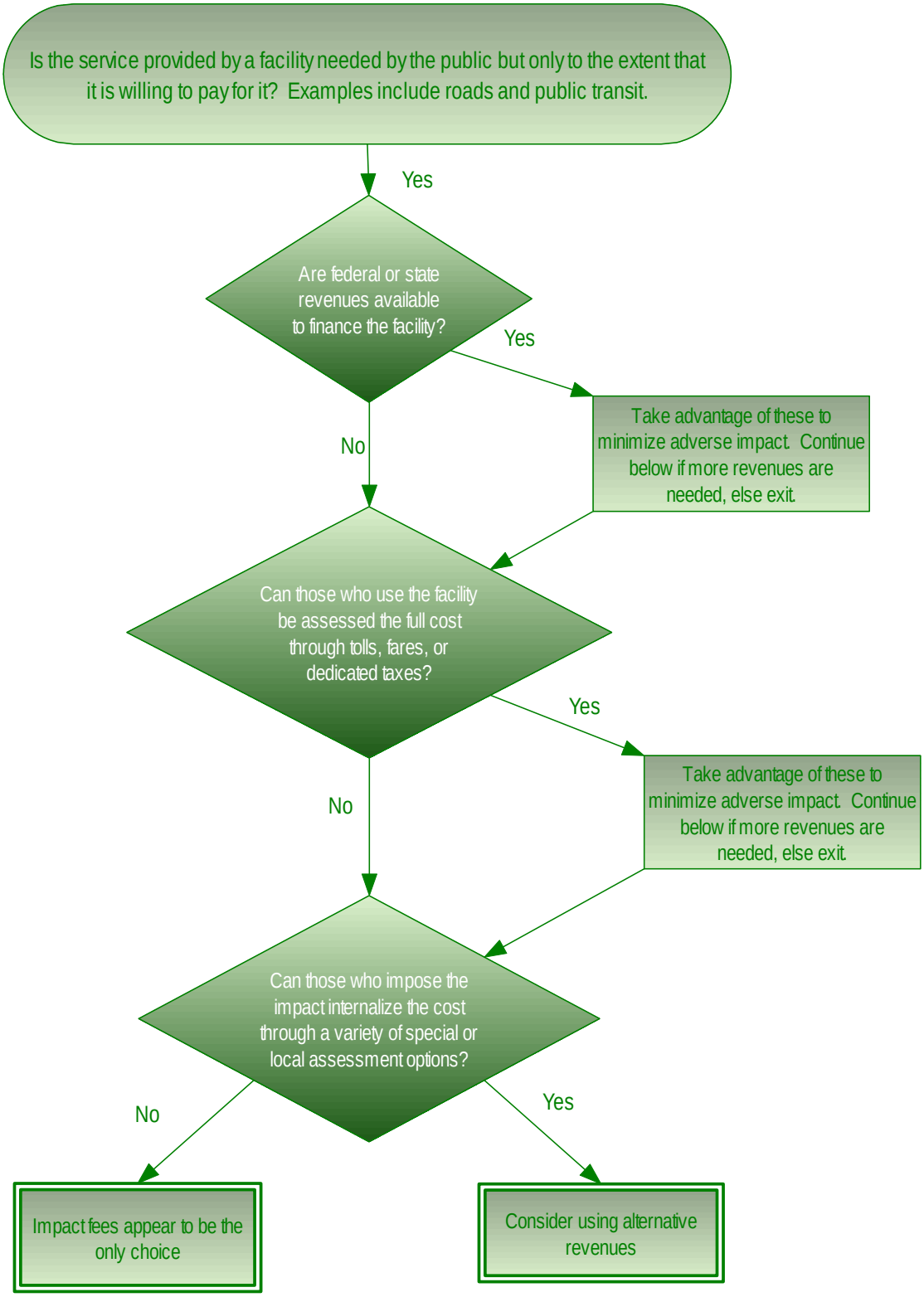
Decision Chart 2.2 Water-Based Utilities



Decision Chart 2.3 Public Amenity Facilities



Decision Chart 2.4 Transportation



Chapter 3 - The Role of the State

This chapter briefly summarizes states with impact fee enabling acts, and includes summary tables, and examples of evolving state statutes. It highlights those states that address affordable housing, reviewing how they enable facilitation of affordable housing in light of locally assessed impact fees. This information is useful to practitioners as the state statutes obviously affect the local impact fee design. For those states without enabling legislation, practitioners should look to case law.

Impact fees were originally developed by local governments in the absence of explicit state enabling legislation. Consequently, such fees were originally defended as an exercise of local government's broad "police power" to protect the health, safety and welfare of the community. The courts gradually developed guidelines for constitutionally valid impact fees, based on the relationship (in legal parlance "rational nexus") that must exist between the regulatory fee or exaction and the activity that is being regulated. Texas adopted the first general impact fee enabling act in 1987. To date, 26 states (illustrated in Figure 3-1) have adopted impact fee enabling legislation (for other than water and wastewater fees). These acts have tended to embody the constitutional standards that have been developed by the courts. Some states where impact fees are popular, such as Florida, currently do not have impact fee enabling legislation. In Florida, the authority of cities and counties to adopt impact fees is solidly established in case law. In some other states, such as Tennessee and North Carolina, impact fees and development taxes are generally authorized for individual jurisdictions through special acts of the legislature.

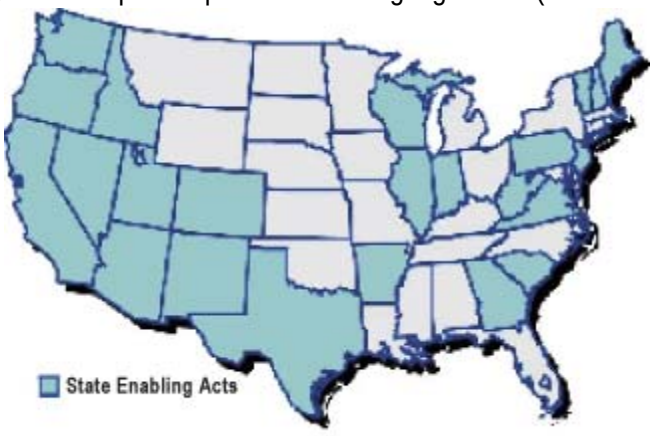


FIGURE 3-1. STATES WITH IMPACT FEE ACTS

Review of State Enabling Acts

Table 3-1 lists the states with enabling acts and reports the facilities eligible for impact fee financing. Some notable recent developments in impact fee legislation illustrate that states continue to wrestle with impact fee authority, parameters, and procedures. Several examples are highlighted here, and the full text of all the state statutes is posted at http://www.huduser.org/rbc/ and may be obtained from HUD or the authors.

The Texas legislature amended that state's impact fee enabling act, effective September 1, 2001. Credits against the impact fees for other taxes or fees that would be paid by new development and used for capital improvements of the same facility type as the impact fee are now required. As an alternative to performing a revenue credit calculation, cities[42] can simply reduce the impact fees by 50 percent. The maximum width of road impact fee service areas was increased from three to six miles, and the amount of time between mandatory updates was increased from three to five years. The recalculation requirement described above

[42] In Texas, counties have very limited authority to regulate development and do not have impact fee authority.

was eliminated. Finally, the number of public hearings required before impact fees could be updated was reduced from two to one (two are still required for initial adoption).

The Idaho legislature recently amended that state's impact fee enabling act in a way that favored a manufacturer in its dispute with the local highway district. Micron, a local manufacturer, had filed an independent assessment with the highway district for an expansion to its existing manufacturing facilities in Boise in which it claimed that it should get credit for all property taxes paid in the past or in the future by Micron to the district and available for capital improvements. The amendments to the act, which became effective July 1, 2002, seem to require local governments to calculate revenue credits in such a way that an existing business that expands its operations or builds a new facility gets credit for past and future tax payments by the business within the same service area, even though the gross fee before credits is based only on the net increase in traffic generated by the expansion or new construction. If interpreted as the act appears to intend, an existing business that expands or opens a new branch within the same service area would likely never pay a road impact fee, while a business that does not have existing operations within a service area would be required to pay. Such an inequitable outcome would be subject to challenge as contrary to the enabling act's more general "proportionate share" language. As a result, the amendments to the state act cast a cloud of uncertainty over how revenue credits should be calculated in Idaho.

Two brief examples of states' continuing efforts to refine impact fee authority are illustrated here:

- Arkansas adopted an impact fee enabling act on April 22, 2003. The act only applies to municipalities and water or wastewater providers, it does not authorize impact fees for counties. It clarified the authority of cities to enact impact fees, which had not been firmly established before this. Like most state acts, it does not allow school impact fees. It is relatively short and has few requirements. Its only unusual feature is that it requires that the amount of the impact fee paid be itemized separately on the closing statements when property is sold. The original version of the bill, drafted at the request of the state homebuilders association, had proposed that the fees for single-family homes actually be paid at time of closing by the buyer, but this requirement was dropped in conference committee.
- Colorado also adopted an impact fee enabling act. Senate Bill 15 was signed by the governor on November 16, 2001. Among other things, this bill created a new Section 104.5: Impact Fees, in Article 20 of Title 29, Colorado Revised Statutes, which specifically provides that:

  Pursuant to the authority granted in section 29-20-104 (1) (g) and as a condition of issuance of a development permit, a local government may impose an impact fee or other similar development charge to fund expenditures by such local government on capital facilities needed to serve new development.

  Home-rule cities in Colorado had long assessed impact fees, but the authority of counties and towns to assess impact fees was less clear. While clarifying the authority issue, the enabling act has created some confusion about whether local governments can assess impact fees at time of building permit, or whether they must assess them at some earlier stage in the development process.

In New Mexico, House Bill 334, which was signed by the governor and became law in 2001, specifically authorizes impact fee waivers for affordable housing projects.

The Nevada legislature passed Assembly Bill 458, which became effective July 1, 2001. The bill added traffic signals, parks, police stations and fire stations to the list of facilities that could be funded with impact fees.

TABLE 3-1. FACILITIES ELIGIBLE FOR IMPACT FEE ASSESSMENT BY STATE

State	Roads	Water	Sewer	Storm Water	Parks	Fire	Police	Library	Solid Waste	School
Arizona (cities)	●	●	●	●	●	●	●	●	●	
Arizona (counties)	●	●	●		●	●	●			
Arkansas	●	●	●	●	●	●	●	●		
California	●	●	●	●	●	●	●	●	●	●
Colorado	●	●	●	●	●	●	●	●	●	
Georgia	●	●	●	●	●	●	●	●		
Hawaii	●	●	●	●	●	●	●	●	●	●
Idaho	●	●	●	●	●	●	●			
Illinois	●									
Indiana	●	●	●	●	●					
Maine	●	●	●		●	●			●	
Montana	●	●	●	●	●	●	●	●	●	
Nevada	●	●	●	●	●	●	●			
New Hampshire	●	●	●	●	●	●	●	●	●	●
New Jersey	●	●	●	●						
New Mexico	●	●	●	●	●	●	●			
Oregon	●	●	●	●	●					
Pennsylvania	●									
Rhode Island	●	●	●	●	●	●	●	●	●	●
South Carolina	●	●	●	●	●	●	●			
Texas	●	●	●	●						
Utah	●	●	●	●	●	●	●			
Vermont	●	●	●	●	●	●	●	●	●	●
Virginia	●									
Washington	●				●	●				●
West Virginia	●	●	●	●	●	●	●			●
Wisconsin (cities)	●	●	●	●	●	●	●	●	●	
Wisconsin (counties)		●	●	●	●	●	●	●	●	

Selected provisions of state impact fee enabling acts are summarized in Table 3-2. The first column shows the maximum number of years that impact fees can be retained by a local government before being spent on eligible facilities or refunded back to the fee payer. The second column indicates the presence of a rather onerous recalculation requirement, which mandates that the local government recalculate the impact fees after completion of the capital improvements plan, then refund any excess collected if actual costs were less than projected costs. This provision was in the original Texas act and was copied virtually verbatim in several other acts. The third column indicates whether and for how long fee assessment locks in the amount of the fee. In the Texas act, the fee schedule in effect at time of platting is the maximum fee that may be charged to development within the subdivision, regardless of when development actually occurs. The final column indicates the frequency within which the fees must be updated.

TABLE 3-2. SELECTED IMPACT FEE PROVISIONS

State	Time Limit for Expenditures	Recalculation Requirement	Assessment Locks in Fee	Update Frequency
Arizona (cities)	None	no	No	none
Arizona (counties)	5 years	no	No	2 years
Arkansas	7 years	no	No	none
California	5 years	no	No	none
Colorado	none	no	No	none
Georgia	6 years	no	180 days	none
Hawaii	6 years	no	No	none
Idaho	10 years	no	1 year	5 years
Illinois	5 years	no	No	5 years
Indiana	6 years	no	3 years	5 years
Maine	none	yes	No	none
Montana	none	no	No	none
Nevada	10 years	yes	No	3 years
New Hampshire	6 years	no	No	none
New Jersey	none	no	No	none
New Mexico	7 years	yes	4 years	5 years
Oregon	none	no	No	none
Pennsylvania	none	yes	No	none
Rhode Island	8 years	no	No	none
South Carolina	5 years	no	Forever	none
Texas	10 years	no	Forever	5 years
Utah	6 years	no	No	none
Vermont	6 years	yes	No	none
Virginia	15 years	yes	Forever	2 years
Washington	6 years	no	No	none
West Virginia	6 years	no	No	none
Wisconsin (cities)	none	no	No	none
Wisconsin (counties)	none	no	No	none

Impact Fee Statutes and Affordable Housing

Of the 26 states that have explicit impact fee enabling statutes, 14 address affordable housing: California, Colorado, Georgia, Idaho, Indiana, New Jersey, New Mexico, Pennsylvania, South Carolina, Texas, Vermont, Washington, West Virginia, and Wisconsin. Only Idaho, New Mexico, Pennsylvania, and South Carolina define affordable housing and all use variations of HUD's 80 percent median income standards. The rest would presumably leave it to local governments to define the term for local application.

Fourteen states enable impact fees to be waived on qualifying affordable housing developments. Of those, five require waived fees to be financed or paid for from a source of revenue not related to impact fees: Georgia, Idaho, South Carolina, Utah, and Washington. Another nine states enable waivers without making up the lost revenue: Colorado, Indiana, New Jersey, New Mexico, Pennsylvania, Texas, Vermont, West Virginia and Wisconsin.

Other states address affordable housing in different ways. California exempts housing dedicated for elderly occupants and state-owned migrant farm labor housing from school impact fees. Texas requires that local governments failing to properly certify impact fees would be assessed a penalty of 10 percent of their collections with the funds deposited in a housing trust fund.

Two states require an affordable housing impact assessment of sorts. South Carolina requires that "Before imposing a development impact fee on residential units, a governmental entity shall prepare a report which

estimates the effect of recovering capital costs through impact fees on the availability of affordable housing within the political jurisdiction of the governmental entity" (6-1-930(A)(2)). Wisconsin has a similar provision requiring that local governments devising impact fees ". . . includ(e) an estimate of the effect of recovering these capital costs through impact fees on the availability of affordable housing within the political subdivision" (66.0617(4)(a)3.).

Chapter 4 - Impact Fees and Housing Affordability

This Guidebook encourages local governments to consider issues of fairness and equity which work in favor of affordable housing. This chapter reviews key elements associated with setting the amounts of particular impact fees in different jurisdictions. It explains the rationale for the use of impact fees based on square footage as a starting point, followed, in some cases, by additional elements that further vary costs across households to reflect other underlying cost differences.

The chapter begins by reviewing the general choice of impact fee cost variables and possible approaches to defining choices faced by many jurisdictions. Next, the chapter presents the recommended logical method of using household square footage to determine the impact fees of a wide variety of improvements, ranging from parks, to fire, to roads, to water and sewage. This section also describes methods in addition to residential square footage that can be used to set impact fees for facilities such as water supplies or roads. Next, simplified methods are further explained through the use of real-world examples of specific kinds of impact fee setups that have occurred in selected locations. Finally, underlying policy approaches commonly used to limit the effect of impact fees on particular types of affordable housing, with supplemental decision guides about affordability exemptions, exclusions, waivers and forgivable loans are included.

It is important to note that the guidance given in this chapter is based on years of research and consulting with local governments, and has come together in this Guidebook as the authors' best recommendation based on this experience base. Readers should also refer to Appendix C of the Guidebook for further understanding and discussion of the methodology suggested in this chapter.

Review of Impact Fee Cost Variables

Impact fees can be calculated in a range of different amounts and imposed using a wide variety of different structures that ultimately depend on the state, the local jurisdiction, and the preferences of citizens who influence the local government process. This is partly a reflection of legal distinctions and partly a reflection of policy matters. Over time, fees have evolved as the complexity of impact fee arrangements and amounts of money being collected have grown.

Early uses of impact fees were typically in simple forms using constant or flat fees across houses or apartments, often without regard to any notion of size or type of unit that was covered under the fee. This kind of fee structure charges impact fees to purchasers in a way that is simple to calculate and provides the necessary revenues for construction of infrastructure. Many jurisdictions still charge flat impact fees on all residential units regardless of type or size. However, underlying costs across units range widely based on size of the unit and number of occupants that tend to use more or less of particular services. While the fixed amounts are undoubtedly simple to understand and enforce, they are inherently unfair. Flat rate impact fees compromise affordability and are socially negative to the degree they systematically overcharge purchasers in smaller, less expensive houses or apartments and undercharge others in the most valuable houses.

If impact fees are to be varied based on differences between units, then what is the appropriate variable? Choices are essentially unit type (single-family detached, townhouse, condominium, apartment and

manufactured home are usual types), number of bedrooms, or size in square feet. Then the per capita multiplier would be characterized as persons per unit, based on unit type, number of bedrooms, or square footage of heated space. (In the case of schools the measure would be based on public school students.) All would be an improvement over assessing a flat fee on all residential units despite differences in occupancies between them.

Research done as background for this project indicates that assessing impact fees for residential development based on persons per 1,000 square feet may be the easiest and fairest way to make such assessments. It is fair because persons per dwelling unit rise as the size of the unit increases, to a point, so this relationship may be necessary to meet the proportionality criterion of impact fees. It is easier because the relationship can be calculated simply as the quotient of total residential square feet from assessor records and total population for the same year of the assessor records. From this at least a rough proportionality is derived that assures more equitable treatment than a flat fee. This simple yet equitable approach to calculating impact fees is based on several studies showing a general pattern that persons per 1,000 square feet do not vary much by type of unit within a jurisdiction. Table 4-1 summarizes results from five such studies. While variations exist in occupancy levels between types of units, they are considered *de minimus*. Exactions such as impact fees need only meet the principle of "rough" proportionality so focusing on precise differences in levels of occupancy between types of units should not be necessary. All that should be necessary is calculating the overall average figure of persons per 1,000 square feet for the jurisdiction for which impact fees may be assessed.

TABLE 4-1 PERSONS PER 1,000 SQUARE FEET

County	SF Detached	SF Attached	Apartment/Condo	Average
Brevard FL	1.5	1.4	1.4	1.4
Collier FL	1.2	1.1	1.2	1.2
DeKalb GA	1.4	1.3	1.3	1.3
Douglas CO	1.4	1.3	1.6	1.4
Stafford VA	1.4	1.6	1.4	1.4

Source: Compendium of studies conducted by the authors.

Mechanically, for any given jurisdiction the relevant impact fee (except for public school impact fees) should be proportional to the following expression:

*[Total Residents / Total Residential Heated Space] * 1,000*

where:

Total Residents is either based on the most recent census or a current estimate,

Total Residential Heated Space is the sum of residential space in square feet based on property assessor records for the same year as the residential estimate.[43]

** The multiplier 1,000 provides a figure for persons per 1,000 square feet of heated area.*

[43] If the 2000 census is used, then the denominator should be the sum of total residential heated space constructed 2000 or earlier based on assessor records.

Note that where the impact fees involve public school services, *Total Public School Students* should be substituted for *Total Residents* with the balance of the formula remaining the same. Technically, there may also be a floor (such as a minimum assessment for all units under 800 square feet) and a ceiling (such as a maximum assessment for units more than 3,500 square feet (see Table 4-3), unless local knowledge suggests otherwise.[44] This approach was pioneered by the metropolitan Atlanta chapter of the National Association of Home Builders and used widely throughout that metropolitan area. It is also becoming increasingly used in Florida and in numerous Mountain and Western states. To a very large extent, this approach to calculating impact fees may do more to lessen potentially adverse effects on housing affordability than any other – aside from waiving fees outright (see the case studies and related discussions below).

Research by the National Association of Home Builders based on the American Housing Survey data appears to support this approach with some refinement.[45] Table 4-2, reporting NAHB's analysis, shows the national average persons per unit for different categories of house base based in 500 square foot increments above 1,000 square feet. It is more precise than the more general calculation reported in Table 4-1. It confirms that between a range of house sizes – in this case 1,000 and 3,000 square feet – persons per unit increases as house size increases. The rate of increase between categories falls as size increases, however.

Using NAHB's data, one way in which to refine estimates of persons per unit based on house size is to establish a base number of persons for the first 1,000 square feet of a residential unit, then increase the number of persons per unit in 500-square foot categories up to 3,000 square feet. This would show that for all residential units the average occupancy is 2.03 persons for units at or less than 1,000 square feet and increases at an average of about 0.16 persons per unit for each increment of 500 square feet to 3,000 square feet, capped at 3.05 persons per unit thereafter. Detached units would have slightly higher base and cap figures at 2.35 to 3.07 respectively. For single-family attached (townhouse) units, the range to be 2.03 to 2.66 and for multifamily the range is 1.89 to 2.29.

The NAHB analysis does not consider smaller units (under 500 and between 500 and 1,000 square feet) or larger ones up to 3,500 square feet. The data also appear to considers only occupied ones – thus over-stating the impact by removing vacant units nonetheless intended for occupancy (such as those for-sale, for-rent, or vacant between moves). This would have the effect of increasing impact fees more than normally recommended in practice. Using the NAHB's reporting format for persons per unit by increments of 500 square feet, Table 4-3 reports a refined analysis. It extends the detached unit analysis for detached units because of the very sizeable number of homes in those categories but has fewer categories for all forms of attached units (townhouses, condominiums, cooperatives and apartments) because of reduced sample size.

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[44] For example, in popular coastal areas, new homes within walking distance of the beach range from 4,000 square feet to more than 10,000 square feet because they are rented by multiple families during holidays. At the other end of the spectrum, a college town may have four or more persons per small apartment unit even though the national average is around half that.

[45] Memorandum July 7, 2006 from David A. Crowe, Senior Staff Vice President, to David Engel, Director, Affordable Housing Research and Technology Division, U.S. Department of Housing and Urban Development.

TABLE 4-2. OCCUPANCY BY OCCUPIED UNIT SIZE BASED ON UNIT TYPE

Unit Type	Square Foot Range	Persons Per Unit	Change in Persons Per 1,000 Square Feet	Percent Change in Persons Per 1,000 Square Feet
All	<1,000	2.03		
	1,000-1,500	2.49	0.46	22.7%
	1,500-2,000	2.67	0.18	7.2%
	2,000-2,500	2.83	0.16	6.0%
	2,500-3,000	2.95	0.12	4.2%
	3,000+	3.05	0.10	3.4%
Single Family Detached	<1,000	2.35		
	1,000-1,500	2.57	0.22	9.4%
	1,500-2,000	2.70	0.13	5.1%
	2,000-2,500	2.86	0.16	5.9%
	2,500-3,000	2.96	0.10	3.5%
	3,000+	3.07	0.11	3.7%
Single Family Attached	<1,000	2.03		
	1,000-1,500	2.33	0.30	14.8%
	1,500-2,000	2.42	0.09	3.9%
	2,000-2,500	2.50	0.08	3.3%
	2,500-3,000	2.62	0.12	4.8%
	3,000+	2.66	0.04	1.5%
Multi-Family	<1,000	1.89		
	1,000-1,500	2.27	0.38	20.1%
	1,500-2,000	2.42	0.15	6.6%
	2,000-2,500	2.30	-0.12	-5.0%
	2,500-3,000	2.43	0.13	5.7%
	3,000+	2.29	-0.14	-5.8%

Source: National Association of Home Builders based on analysis of *American Housing Survey for the United States in 2003*.

TABLE 4-3. OCCUPANCY BY UNIT SIZE BASED ON UNIT TYPE FOR ALL UNITS

Unit Type	Square Foot Range	Persons Per Unit	Change in Persons Per 1,000 Square Feet	Percent Change in Persons Per 1,000 Square Feet
Detached	<500	2.01		
	500-1,000	2.15	0.14	7.0%
	1,000-1,500	2.44	0.29	13.5%
	1,500-2,000	2.60	0.16	6.6%
	2,000-2,500	2.77	0.17	6.5%
	2,500-3,000	2.86	0.09	3.2%
	3,000-3,500	2.94	0.08	2.8%
	3,500+	3.02	0.08	2.7%
Attached	<500	1.36		
	500-1,000	1.61	0.25	18.4%
	1,000-1,500	1.95	0.34	21.1%
	1,500-2,000	2.20	0.25	12.8%
	2,000-2,500	2.21	0.01	0.5%
	2,500+	2.29	0.08	3.6%

Source: Weighted-unit analysis of *American Housing Survey for the United States in 2003*, based on number of non-seasonal occupants per unit by unit type and size, including vacant units.

This application of the NAHB approach results in the following formulas based on national data, which is a refinement to the approach illustrated in Table 4-1:

Detached Units

Occupancy = *2.02* persons per unit beginning at *500* square feet
plus *0.000333* persons per square foot (equivalent to about 0.333 persons per 1,000 square feet) up to *3,500* square feet then
3.02 persons at 3,500 square feet and larger

Attached Units

Occupancy = *1.36* persons per unit beginning at *500* square feet
plus *0.000465* persons per square foot (equivalent to 0.465 persons per 1,000 square feet) up to *2,500* square feet then up to 2,500 square feet then
2.29 persons at 2,500 square feet and large

The actual figures can be estimated for each of the more than 40 metropolitan areas included in the *American Housing Survey*, including the more than 200 sub areas. They may be more difficult to estimate for individual communities, however, because of data limitations. This is why the simple approach suggested in Table 4.1 and its associated discussion may be practical. Adjusting locally derived figures by national trends may help refine local analysis. [46]

In addition, the maximum or cap figures shown above for detached and attached units are more an artifact of sampling limitation than reality in many situations. While the occupancy level may flatten out above a certain size in some communities it may increase in others. Moreover, very large homes may provide living quarters for support staff. For example, in some affluent sections of all metropolitan areas families may employ nannies with one benefit being living quarters for them and their children. In resort areas, large homes may not be occupied by many people during the off-season but during peak season a large home may serve multiple families each renting sections of the home or pooling resources to rent the entire home. Finally, there is some concern that inevitably as population pressures increase along with rising energy prices and rising home mortgage interest rates larger homes may become available for formal (such as separate entrances and kitchens and such) to informal (such as one entrance and common use of certain rooms) thereby resulting in larger homes being occupied by more people than may have been assumed when the home is constructed. It may be reasonable local planning policy to include this contingency in long-range land-use and facility planning.

There are other considerations. Even with the characteristics determined, the actual analysis of impact fees based on societal costs is not entirely straightforward. For example, every home effectively has a set of unique occupants based on number of people, gender, ages and other characteristics, yet impact fees for the specific house do not vary in this level of detail. Checking each family each year to set fees is not only impractical but it would be a charge on each family rather than an impact fee on the house. Therefore,

[46] If local conditions are roughly proportionate to national experience it may be possible to use the formulas adjusted to reflect local conditions.

rather than basing individual household charges on actual family characteristics the fees should properly be based on amounts that would *typically* be charged on the property. These charges would reflect the fees from the average, projected occupants that tend to occupy the property being taxed and who pay the costs resulting from the fee. Setting typical fees generally avoids the need to review occupants of the house over time, while still charging fees based on the likely potential charges from such a house. Although the actual fees to owners could easily be more or less than costs they incur in any particular year, the idea is that over time the occupants will evolve, owners will change, and average differences between actual families in a home and typical families that might occupy the same home will tend to become smaller. As a result, to the extent that impact fees vary across houses the differences are based on characteristics of the home and its location, and while those characteristics will typically relate to specific occupants they may not do so in particular cases.

A final point is necessary. Measuring impact based on the occupancy of the original tenants will mask overall occupancy over the life of the structure. This will have the effect of over- or under-charging. For example, the authors are aware of homes constructed in resort coastal areas that are used principally as second homes so the apparent occupancy level is small when averaged over the year – and school impacts are negligible since the school children, if any, attend elsewhere. Yet, over a generation, that same home may become part of the regular stock of homes occupied by permanent residents and their children. Impact fees assessed based on the original occupancy characteristics in this case would be under-charged based on long-term impacts of the home on the community. At the other end of the spectrum, a new subdivision in a metropolitan area may be occupied initially by families with children and the public school student generation rate can appear quite large. Yet, over time, as the children move out of the house, the parents remain often becoming "empty nesters" before they sell perhaps to a new family with children. Impact fees based on the original occupancy in this case would be over-charged relative to long-term impacts of the home. It is for these reasons that long-term, average occupancy characteristics are the normally recommended basis for calculating impact fees.

Description of Square Footage Valuations Using Impact Fees

Experience has shown that impact fees can potentially be imposed for financing a wide range of public facilities and services. Of course, there are variations in the underlying laws as well as in the particular fees that communities want and need to put into place. This section presents basic descriptions of the logical procedures that can potentially be used to set different types of impact fees, assuming the community is legally authorized to do so and the residents have chosen to act this way. Note that in this section the discussion is designed to be general, so that it works across communities.

For this analysis, impact fees are organized into the following five types:

- Parks and libraries
- Police and fire
- Water, sewer and stormwater
- Roads
- Schools

There are some general principles used in these procedures that apply to all types of impact fees, and are perhaps the most important guidance in this document. This includes basing impact fees on the size or square footage, because setting any fee at a fixed amount regardless of house size tends to overcharge

small houses and undercharge large houses. Even though fees that are equal for all houses might be legal, that approach is unnecessarily simplified and will clearly compromise housing affordability. The recommendation is to use conditioned square footage as the best parameter capturing size of home. While the number of bedrooms or internal rooms might also work, they are discouraged here. The most important reason is that designation of rooms as bedrooms and division of internal rooms both are more subject to irrelevant manipulation than conditioned square footage. In the simplest case, basing impact fees entirely on house size may be sufficient.

General Principles. The preliminary steps in determining the amount of any particular impact fee are as follows.

1. Identify a specific target service and an affected geographic area,
2. Determine the size of the affected population (the number and square footage of houses projected and, for impact fees on schools, the number of schoolchildren),
3. Estimate the total capital cost required to provide the target service, and the amount of capital currently provided or expected to be provided by revenue sources other than impact fees, and
4. Calculate the balance of capital costs for the target services that need to be covered by impact fees because they are not currently provided or expected to be provided by other sources.

The other principles used to set impact fees typically differ from one type of fee to another. This happens when the underlying costs vary significantly based not only on house size, but also on house characteristics or neighborhood attributes other than size. Examples include distance from the home to a specific facility, or density around the home in a small neighborhood. The most basic variability factors related to each type of impact fee are discussed in the following sections. While actual impact fees may ultimately vary with other factors as well, so long as the variables laid out here correspond to most of the variation across homes, the need for using additional variables is relatively small and the added complexity may be large.

It is most common for the straightforward situation to arise when new facilities being analyzed are based on serving new development alone, since that simplifies identifying the amount of funding (and limit on that amount) that can be collected from new facilities. Once the amount of capital needed from impact fees is calculated and the number of homes expected to be built and covered by the fees is determined, then the fee amounts can be calculated. As noted above, in the simplest cases these data may be sufficient to set specific impact fees applicable throughout the relevant community. In other more complex cases the impact fees should vary based on additional factors related to the underlying project. If for some reason the impact fee amounts determined at this stage are unworkable or unacceptable, then this process must be repeated starting with the preliminary steps above until an acceptable case is identified.

The basic process for setting different types of impact fees is illustrated under each of the five types: parks and libraries; police and fire; water, sewer and stormwater; roads; and schools.

Parks and Libraries. The general principles can readily be used to cover the cost of building public parks and libraries. Unlike other impact fees these typically do not depend on factors such as distance from the home to the service, since users must pay their own travel costs. Similarly, given the number of users, the costs are independent of the sizes of lots where user homes are located, and the overall density of the neighborhoods where users live because such services are based not on density but delivery of the service consistent with level-of-service standards. The single factor with the greatest effect on costs is the size of houses in the service area, because larger homes will house larger families that will generally tend to use parks and libraries more than smaller families. As shown earlier, larger homes up to some threshold have

more occupants than smaller ones. It is simple and straightforward to vary impact fees between houses based on house area, with overall amounts of all the fees set to cover the underlying costs.

Example:
If a new library will serve 25,000 new residents and cost $1,000,000 to build, then the total library impact fee per new resident would be $40. Assuming all new residents live in detached homes and using the formula above, the impact fee for a 2,000 square foot home would be:

(2.02 x $40) + (0.000333 x (2,000 – 500) x $40) = $100.80.

Police and Fire. Another common type of impact fees is for police or fire services. These funds will cover items such as new or enlarged police stations or firehouses, or long-lived capital equipment used by these departments. Generally speaking, larger homes clearly present greater potential demands on these services because they contain more occupants and more property. As a result, fees could properly increase with house square footage. Furthermore, both police and fire departments will experience costs that vary with the square mileage of their jurisdictions because of the need to travel. This means that the impact fee can vary across properties based on the distance from the property to the government office.

Example:
If a new fire station will serve 25,000 residents and cost $20,000,000 to build, then the total fire station impact fee per new resident is $800. If a new detached home is 2,000 square feet, the fire department impact fee would be:

(2.02 x $800) + (0.000333 x (2,000 – 500) x $800) = $2,016.00.

To the extent the distance from the fire department to the new house affects the cost of providing protection, the fees should be higher or lower at varying distances. For example, in Missoula, MT, the impact fee for rural areas is on the order of 10 times that for urban areas because lower densities mean more fire stations per unit for the same response time than higher density areas.

Water, Sewer and Stormwater. Many communities provide homeowners with water from publicly owned facilities. Frequently they will also treat or dispose of household sewage, and manage stormwater from large or medium-sized subdivisions. While the day-to-day costs of operations are typically covered by tax receipts or marginal fees collected from all users, the capital expense needed to invest in construction or expansion of the required equipment and facilities may be raised from impact fees on new homes.

Example:
If a new water supply facility will serve 10,000 new residents and cost $10,000,000 to build, then the water supply impact fee on new houses averages $1,000 per resident. If a new detached home is 2,000 square feet the impact fee would be:

(2.02 x $1,000) + (0.000333 x (2,000 – 500) x $1,000) = $2,520.00

However, two additional factors affect the appropriate fee per house.

Distance from House to Water Supply Facility. First, to the extent the separation between houses and the water supply facility significantly increases the cost of the water system, the impact fees

should be higher at above-average distances from the water supply facility and lower at below-average distances. For example, if the water source serves an area extending 10 miles in each direction, then the cost experienced by the water supplier might rise and the fees imposed on purchasers should be increased over a range from, say, $500 per new resident at a distance of up to 2 miles to $2,000 per new resident at distances from 8 to 10 miles. The effect is to vary the fees imposed on purchasers to the extent costs vary with distances from their homes to the water supply.

Neighborhood Density. Second, to the extent the separation between nearby houses varies significantly across users, the cost of the pipe approaching the houses will also vary, even assuming the distances to the supply facility is the same. Other things equal, the result is for larger pipes that can serve multiple houses to be less expensive per house than smaller pipes dedicated to a single house. If the increase or decrease in cost associated with neighborhood density was 10 percent above or below the average, then this component of impact fees could logically vary by 10 percent across neighborhoods.

The combination of distance to water supply, neighborhood density, and house size would determine the actual fees on particular houses. Based on the particular values in this example, homes located at high (low) distances from the water supplier and from one another would face fees up to 30 percent higher (lower) than average, as listed in Table 4-4.

TABLE 4-4. IMPACT FEE ADJUSTMENTS BASED ON DISTANCE TO WATER SUPPLIER AND NEIGHBORING HOUSES

	Low distance to water supplier	Average distance to water supplier	High distance to water supplier
Low distance to neighboring houses	-30%	-10%	+10%
Average distance to neighboring houses	-20%	0%	+20%
High distance to neighboring houses	-10%	+10%	+30%

Roads. Roads may be the single facility most often covered by modern impact fees on new residential construction. This could properly include the entire cost of building new roads inside a newly built subdivision, as well as the incremental costs of expanding existing roads located close to the subdivision.

To date, few road impact fees have been adopted that vary by the size of the dwelling unit. This is largely because road impact fees are generally based on national trip generation rate data, and the ITE manual[47] does not provide rates by dwelling unit size. However, the fact that trip generation rates for residential uses vary by the size of the household is actually well documented in the transportation planning literature. As shown in Table 4-5 below, the average number of vehicle trips generated per day is almost directly proportional to the number of people living in the dwelling unit, which as discussed earlier, is strongly related to the size of the dwelling unit.

47 Institute of Transportation Engineers (ITE), *Trip Generation* 7th ed., 2003.

TABLE 4-5. VEHICLE TRIPS BY HOUSEHOLD SIZE

Household Size	Daily Trips	PM Peak Hr Trips	
		Single-Family	Multi-Family
One Person	3.5	0.369	0.323
Two Persons	6.7	0.707	0.618
Three Persons	8.8	0.928	0.812
Four Persons	10.6	1.118	0.978
Five Persons or More	12.5	1.319	1.154

Source: Daily trips from Transportation Research Board, NCHRP Report 365, "Travel Estimation Techniques for Urban Planning," Washington, D.C.: National Academy Press, Table 9 (for urban areas with populations of 500,000 to 1 million), 1998; PM peak hour trips based on 10.55% of daily trips in PM peak hour for single-family and 9.23% of daily trips in PM peak hour for apartment units from ITE, Trip Generation, 7th edition, 2003.

Other factors can also be considered. First, data from one source indicate that vehicle miles per driver drop by about 50 percent between low-density homes (one unit per 4 acres) and high-density homes (10 units per acre). Second, a further adjustment should be made to the extent it can be shown that new homes located in high-density urban areas generally lead to less traffic than equally sized new homes in rural areas, because more alternative forms of transportation are available for the urban homes and the distances separating them from important destinations are less. Note that this is a factor different from and broader than the density of the immediate neighborhood where the home is located.

Example:
If new roads to serve 5,000 new residents will cost $10,000,000 to build, then the road construction impact fee on new houses averages $2,000 per new resident. If a new house size is 2,000 square feet, the impact fee would be the:

(2.02 x $2,000) + (0.000333 x (2,000 – 500) x $2,000) = 5,040.00

However, it is also appropriate for the impact fees to be set higher in low-density, rural areas and lower than average in high-density ones. Note that these factors could be considered both in the subdivision or local neighborhood where the house lies, as well as the larger general neighborhood where the subdivision lies, since both can affect the cost of road construction or improvement in different ways.

As an example, in one location the amount of traffic per driver per year was found to drop by 50 percent as house density grows from a low of one unit per 4 acres to a high of 10 units per acre. This obviously affects the necessary road construction in which case the impact fee for road construction should change accordingly. If the distribution of house densities is symmetrical, this would correspond to a maximum 50% increase or 50% decrease from an impact fee of say $2,000 per resident based on density. This means that the road impact fees would range from a maximum of $1,000 to $4,000 per resident between high- and low-density areas.

Schools. Schools are one of the property types that are less commonly covered by modern impact fees, although fees on schools are certainly not rare (Table 3-1 lists 7 states out of 25, including California, that specifically provide for impact fees on schools). Those fees appear conceptually similar to impact fees that

finance parks and libraries in that they do not vary directly with individual lot size or overall housing density. One exception is the extent that the school district pays for student transportation and therefore experiences higher cost in low-density communities. However, note that the school bus operating costs are not capital costs and should not be covered by impact fees. The other substantial difference between schools and other public facilities is that overall school costs are clearly driven by *student* population, not *total* population. This suggests that school-related impact fees on different sizes of houses should be set based on the community's typical number of public school students in houses of those sizes, rather than the total number of occupants or adults in the houses. It makes a difference to the extent that the ratio of students to house size varies substantially across house types, since that was not considered to be an issue with other fees based on occupants per 1,000 square feet.

Example:
If new public schools to serve 3,000 new students will cost $30,000,000 to build, then the public school impact fee would be $10,000 per new student. If public school students are equivalent roughly to one-quarter of the household size this is equivalent to $2,500 per new resident. If the average new house size is 2,000 square feet, then the impact fee per new house should the following:

(2.02 x $2,500) + (0.000333 x (2,000 – 500) x $2,500) = 6,300.00.

Summary
Impact fees can be set once the amount of funds needed for particular projects in specified areas has been determined. While the idea is to set each impact fee based on underlying costs, the appropriate methods for calculating particular fees can vary across fee category. There is reason to believe that essentially all fees would justifiably vary based on square footage of houses in the service area, and for some types of fees including parks and libraries this may be the only variable needed. By contrast, for other fees there are additional factors that may affect costs to the point where they should be considered. For example,

- police and fire costs may also depend to some degree on the distance from a house to the police or fire station,
- costs of water, sewer and stormwater facilities can vary significantly with distance from the house to the central facility, as well as based on the overall density of homes near the target home,
- costs of roads per house will reflect the amount of roads built primarily for that house as well as the additional roads built to serve groups of homes in the same general area, and
- setting impact fees for schools involves analyzing whether the square footage used to support students is similar or different across housing types. If it is different then the impact fees should be adjusted for different housing types to be consistent with numbers of students per 1,000 square feet in each type.

Note that while examples given above listed impact fees at fixed amounts per square footage over a range of square footage, those amounts might in principle vary depending on structure size. This means they might, for example, add fewer fees to additional square footage in large houses than in smaller houses. For example, the fee might go up per 1,000 square feet by a fixed amount, up to 3,000 square feet, then by a lesser amount for each additional 1,000 square feet. The result would be for cost to increase in both sizes, but by less in the large house than in the small house.

The information presented in this section is summarized in the following table.

TABLE 4-6. BASIC FACTORS FOR SETTING HOUSE-LEVEL IMPACT FEES

Impact Fee Category	Factors for Setting House-Level Impact Fees
Parks and Libraries	Square footage of house
Police and Fire	Square footage of house Distance from house to police or fire service
Water, Sewer and Stormwater	Square footage of house Distance from house to water or drainage facility Density of neighborhood where house is located
Roads	Square footage of house Amount of roads built primarily to serve the specific house Amount of roads built to serve groups of houses including the specific house
Schools	Square footage of house Number of students per 1000 square feet by housing type

Elements of Program Design

The approach to setting impact fees as described in the previous section is only part of the issue to be considered. From a practical standpoint, communities must make many decisions ultimately leading up to the design and implementation of the impact fees, and the results will likely depend on those details. This section reviews each of the following impact fee design and service issues:

- Service area design
- Level of service standards
- Situation-specific reductions
- Revenue credits
- Broadest reasonable base
- Timing of payment

Designing Service Areas

Impact fee practice requires that fees collected in a "service area" are spent in that area. But this is really just a starting point. Users have some flexibility in setting the service area, and as a matter of practice the larger the service area the more flexibility there is in spending the revenue where (and when) needed most. Service areas that are too small and/or too numerous can result in insufficient revenue generated in many of them to spend on infrastructure improvements. Finally, many services – especially public safety – act as a system in serving the entire jurisdiction. Even though it is may be easiest to design and administer one service area for an entire jurisdiction, it is also important to consider refining service area design and fee structure in ways that preserve or promote housing affordability. There are several ways this can be approached, as discussed below.

Service Area Design Based on Extent of Existing Infrastructure. If the infrastructure needed to serve growth in one large part of the community is already in-place, but substantial new investment is needed in another, then service areas may be drawn reflecting this. In Albuquerque, for example, city staff and

consultants determined that the park system served seven different parts of the city. In "fully served" areas, park land was sufficient to serve projected development needs, while in "partially served" areas, substantial new investment was needed. As a result, in areas where parks were sufficient to meet future needs the park impact fees were zero. In this situation, impact fees would have no effect on housing affordability where infrastructure already exists to meet future needs.

Subject to applicable laws and customs, the kinds of facilities that lend themselves to this analysis include neighborhood and community parks, branch libraries, public safety, roads, community centers, and schools.

Service Area Design Based on Extent of Revenue Credit. Even where all parts of a community need new or expanded infrastructure to meet development needs, in some cases locally generated revenue may be sufficient to finance those needs while in others it is not. This was the case in Albuquerque as it designed its seven road service areas. In areas where road needs were the greatest to meet relatively rapid growth, impact fees were high. In other areas that needed some road enhancements, however, the fee became zero because the aggregate road-related revenue generated by all existing and projected development in those cases was sufficient to finance road needs.

Only those facilities that have a relatively predictable revenue stream dedicated to them (such as roads where there are dedicated gasoline taxes) may be appropriate for this kind of service area design.

Service Area Design Based on Response Time. In cases where a constant level of service is desired, the cost to provide the service can vary greatly based on density of development. For example, Missoula County, Montana, wished to maintain an eight-minute public safety response time throughout the county. This meant building more fire stations in remote and less densely settled areas than in closer areas developed at higher density. It settled on a three-tier service-area design that charges impact fees reflecting differential cost of maintaining the desired level of service where those costs varied considerably based on location and density.

Service Area Design Based on Alternative Funding. There are circumstances when parts of a jurisdiction already have the revenue stream needed to assure adequate public facilities. For example, in Texas, many Municipal Service Districts (MSDs) generate their own revenue to construct and maintain facilities. In Florida, many Developments of Regional Impact form local improvement districts for the same purpose. More specialized arrangements can have the same effect, such as tax increment financing districts and various forms of special assessment districts. Where these alternative financing mechanisms fund the same facilities that impact fees would, service areas may be drawn to exclude them or implementing ordinances drafted to exempt them from impact fee assessments – and expenditures of impact fees in those areas. Care must be taken, however, to assure this is done properly. For example, while Texas MSDs may finance their own infrastructure, they typically do not finance the regional roads and regional parks serving them.

Service Area Exclusions. Sometimes parts of a jurisdiction may be excluded from service areas even if the service area otherwise surrounds them. This could be the case in redevelopment areas where, although there is no taxing or special assessment district in place, adequate funding sources have been identified to meet infrastructure needs. For example, one part of Albuquerque, Mesa del Sol, is not in any service area principally because separate planning and financing mechanisms are being developed to facilitate growth

there. Through a development agreement with the city, all on-site and relevant off-site infrastructure will be financed through a variety of mechanisms uniquely available to it.

Level of Service Standards

Although it is usual practice to adopt the same level of service (LOS) standard across an entire jurisdiction – such as Level of Service D for roads, or 3.50 acres of park per 1,000 residents – this need not be the case. Variable LOS standards are suitable when past, present or future development patterns, constraints, or other factors combined with policy provide a rational basis for it. For example, some Florida counties have an LOS Standard of D for urban areas and C for suburban/rural areas. The rationale is that urban areas are understood to be more prone to congestion than areas farther away, and the cost to maintain the same level of service area could discourage development closer in. Another possibility is public safety response-time level of service differences. Although Missoula chose to have the same response time everywhere, it might have decided to vary response times within each of the tiers. Fees would have gone down but fire insurance premiums would likely have gone up in the non-urban tier. Note that variable LOS standards may not be suitable for libraries, schools, water or wastewater facilities. Decision chart 4.1 is designed to help guide decisions on the appropriate LOS standards.

It is important to note that, if a higher level-of-service is adopted in an area, infrastructure should be brought up to the new standard through revenue from sources other than impact fees.

Situation-Specific Reductions

Because there are always exceptions to any rule, impact fee ordinances usually have the option for the feepayer to conduct an independent fee calculation study to show that the impacts of a particular development may be less than assumed in the impact fee schedule. This assures due process but it can be cumbersome and does not allow for situations in which research has shown reasonably conclusively that impacts are reduced across-the-board in a class of situations. For example, in the early 1990s, Atlanta was the first city in the nation to reduce road impact fees for development near heavy-rail transit stations automatically – and to this date remains the only city to do so. A few jurisdictions reduce water, wastewater and stormwater impact fees based on density of development, with Scottsdale having perhaps the most detailed approach. Individual jurisdictions may make

Atlanta, Georgia: An Innovative Approach to Affordability

Key Atlanta officials were concerned about potentially adverse effects of impact fees on affordable housing. To address these concerns, Atlanta became the first jurisdiction in the nation to adopt the following features.

- 50% reduction if within 1,000 feet of a rail transit station.
- 100% reduction if located within an enterprise zone.
- 100% reduction if located within a federally-chartered empowerment zone.
- 100% reduction if part of a qualified historic preservation project
- 100% reduction if the unit rents for less than 60% of the regional median rent or sells for less than 1.5 times the regional new home sale price.
- 50% reduction if the unit rents for between 60% and 80% of the regional median rent or sells for between 1.5 and 2.5 times the regional new home sale price.
- Broadens the assessment base for parks and recreation by charging non-residential development.

Georgia law requires that revenues waived through these reductions must be offset from sources of revenue other than impact fees. This requirement does not apply to the 50% reduction for being within 1,000 feet of a rail station because studies show that traffic impact is reduced roughly proportionate with this relationship. More information is included in Chapter 5, Case Studies.

refinements to impact fee calculations affecting specific developments based on their particular situation.[48]

Situation-specific reductions may be mostly applicable to transportation and water-related utilities in the following ways:

Transportation. As density increases, vehicle miles traveled per person decreases, based on census data compiled in 2001 for the National Household Transportation Survey. Reductions increase further with the presence of public transit. Generally speaking, the reduction in miles per person from the lowest residential density category (fewer than 75 units per square mile) to the highest (more than 6,000 units per square mile) is about half.

TABLE 4-7. AVERAGE DAILY VEHICLE MILES TRAVELED PER HOUSEHOLD PERSON BY UNIT TYPE

Units Per Square Mile	Miles Per Person	Percent Change Between Categories
151 - 700	29.5	
701 - 2,000	27.1	8.4%
2,001 – 4,000	24.0	11.3%
4,001 – 6,000	20.3	15.6%
6,000+	14.2	30.0%

Source: Nationwide Household Transportation Study 2001, calculated by authors based on annual average vehicle miles per drive times drivers per household person by density category divided by 365.

Proximity of rail stations also reduces vehicle trips. Although the reduction varies by system, a sample of studies indicates the reduction ranges by a third to a half for projects located within about one-quarter mile of rail transit stations.

Water-Related Utilities. Unlike transportation, no national data exist to indicate the range of reductions in water, wastewater, and stormwater impacts associated with residential development features. Scottsdale evaluated costs associated with providing capital facilities throughout the city to several residential unit types and derived the following impact fee schedule based on residential unit density:

Transportation and water-related utilities have significant situation-specific reduction potential. Since they also tend to have among the highest impact fee levels, they merit reductions based on density to help assure that such fees do not impact adversely on housing affordability.

[48] There is a unique situation-specific reduction used in some jurisdictions that is important to note. Age-restricted residential developments such as retirement communities ostensibly do not generate school children, have fewer persons per unit and per 1,000 square feet, and in other respects impose fewer demands on many facilities than other communities. Some jurisdictions exempt such communities from school impact fees and lower impact fees for other facilities. The age-restriction is enforced via covenant that runs with the title that current and future owners must oblige. In some cases, however, covenants are not enforced resulting in owners and/or tenants raising children (theirs or others from their kin or kith) thus increasing school impacts. The school district, which never received the impact fees to expand schools to meet this unexpected demand must enforce the covenant through legal action or doing nothing. The latter option seems to be the norm. Some local governments choose not to recognize these and similar covenants because of their inability or unwillingness to enforce them, and thus impact fees are not reduced. This is purely a local policy decision.

Density	Impact Fee per Unit
1 unit per 2.5 acres	$5,492
1 unit per acre	$3,382
2-4 unclustered units per acre	$2,203
2-4 clustered units per acre	$1,802
5-8 units per acre	$1,585
9+ units per acre	$1,337

Source: Duncan Associates.

Similarly, Denver's water impact fee schedule is based on density, as shown in the following:

Density	Impact Fee per Unit
1 unit per acre	$17,767
2 units per acre	$9,709
3 units per acre	$7,022
4 units per acre	$5,679
5 units per acre	$4,873
6 units per acre	$4,336
7 units per acre	$3,952
Duplex	$3,100
Multi-Family 3+ units	$1,350

Source: Denver Water.

Revenue Credits

New development often brings with it new revenue that is in some ways help provide the same facilities for which impact fees are also assessed. For example, general obligation bonds used to finance new or expanded capital facilities that are retired by property taxes will result in new development paying part of those bonds. Dedicated gasoline taxes, school capital assessments on real property, special levies for parks, and so forth, are candidates for revenue credit calculation to reduce certain impact fees. The reason is that unless the impact fee is reduced by this "revenue credit" the effect may be that new development pays for the same facility twice.

For example, consider a recent court case out of Florida, *Florida Home Builders Association v. Osceola County School Board*. In this case, the county adopted an impact fee for schools essentially as follows (using rounded figures and simplifying the calculation for illustration purposes only):

$20,000	Cost per student
0.50	Students per single-family detached unit
0.25	Students per townhouse
0.20	Students per apartment, condominium unit
$10,000	Impact fee per single-family detached unit
$5,000	Impact fee per townhouse unit
$4,000	Impact fee per apartment, condominium unit

However, the fee did not consider the new taxes new development generates that flow in part to help finance the very class of facilities for which impact fees are assessed. Florida enables local school boards to charge up to 2 mills[49] ($200 per $100,000 assessed value) for school capital purposes. This assessment is on all development, not just residential development. In this case, the local school board was assessing the maximum and using about half the dedicated revenue stream to retire debt for new schools. (The other half is used for maintenance and repair.) Because all development is assessed – not just residential development – an appropriate estimate of the revenue credit would be based on calculating the average assessed value per student, then estimating the present (discounted) value of the stream of revenue new development would contribute to help finance school facilities (excluding maintenance and repair), and deducting that from the gross cost per student. If the average assessed value per student in this county was $512,000 and 1 mill was assessed to finance school capital facilities, then over 25 years (the typical bond period) assuming 4% government borrowing, new development would generate about $8,000 (rounded up) for school capital facilities. The revised calculation would be as follows:

$20,000	Gross impact cost per student
($8,000)	Revenue credit per student
$12,000	Net impact cost per student
0.50	Students per single-family detached unit
0.25	Students per townhouse
0.20	Students per apartment, condominium unit
$6,000	Impact fee per single-family detached unit
$3,000	Impact fee per townhouse unit
$2,400	Impact fee per apartment, condominium unit

The fees would thus be on the order of 40% lower when considering the revenue credit. (In fact, the court ordered the school district to calculate a revenue credit.)

Broadest Reasonable Base

Impact fees for parks and recreation, library and school facilities usually fall on only residential development. Residential impact fees are thus assessed on only a subset of the total base of development in the jurisdiction. One way to reduce potentially adverse effects of impact fees on housing affordability is to broaden the base of impact fee assessment to include all development. In some instances – notably for parks – local governments have been able to quantify the impact of non-residential development and thus justify assessing non-residential impact fees. Except for California, however, school facility impact fees are assessed on only residential development.

To expand the impact fee assessment base, two factors must be taken into account: what is the impact of non-residential development on these facilities, and how would they benefit from their provision?

The first factor is addressed simply as follows: There is a very high correlation between new jobs and new population and housing growth. In most American communities, job growth attracts new residents. Indeed, the relationship between job growth and overall community growth is so strong that input-output analysis – the mainstay of economic impact assessment – focuses only on jobs and not on residents or households.

[49] A mill is short for the word millage, a term used in property taxes. The easiest way to understand tax millages is to use a 1 mill tax as an example. A one mill property tax will produce $1.00 in taxes on each 1,000 dollars of "assessed value".

It is perhaps by definition that new jobs cause the impacts on facilities that need community amenities to be remedied in part by impact fees.

The second factor is also addressed easily. Richard Florida has chronicled the relationship among such services as parks and recreation, libraries, and education. He found that firms are attracted to areas that provide these facilities and without them in sufficient quality, firms will locate elsewhere. Firms thus benefit from the provision of such facilities.[50] Moreover, the Supreme Court in *Dolan v. City of Tigard, OR*, noted that "no precise mathematical calculation is required" to establish a relationship between the impact of development and exactions necessary to offset it. A reasonable case can be made that all impact fees should be assessed to all development because (a) in various ways all development impacts on all facilities; and (b) all development benefits from all facilities in various ways.

Timing of Payments

Where in the development process should impact fees be paid to lessen their potential burden on housing affordability? Numerous statues specify that impact fee assessments and collections occur at the building permit state. Others are silent and in states without impact fee enabling acts the timing of payment is mostly local option. There are two issues here: the point of assessment and the point of collection. Sometimes they are simultaneous such as being assessed and collected concurrent with the building permit – this is perhaps the most common approach as it is the most efficient administratively. It is also the earliest point in the development process where the expected impacts of new development are known best. Impact fees assessed and collected at that stage increase the chance that fees will flow into new or expanded infrastructure roughly concurrent with the impacts of new development.

This does not mean to exclude consideration of assessing and collecting impact fees at other stages of the development process. Perhaps the best stage theoretically is during the sale of law from the land owner to a developer because this increases the likelihood that the land market – through the seller of land – internalizes the impact fee, consistent with economic theory. In many situations this is not practical because final development plans may not be known for years. However, where a land transfer is part of a land sale option agreement that itself is based on securing necessary land-use decisions, including entitlements providing reasonable specificity in overall development, it may be possible to assess and collect the impact fee as part of the condition of land-use and development approval. Under these circumstances, developers purchasing land may include in their land purchase option contract a clause specifying how the price will be adjusted reflecting fees anticipated to be paid. (See Appendix C for sample language.) This may be a practice in only those cases where there is a transfer of land that also engages the land-use decision-making process.

Some local governments assess and collect impact fees at the end of the development process concurrent with the final inspection or issuance of the certificate of occupancy. This has the advantage of preventing the builder from incurring finance costs on the period between the impact fee payment at the building permit stage and sale of the home. Where a residential structure is to be held for rental it allows the builder/owner to finance the fee with lower-cost "take-out" financing, the long-term or permanent financing that replaces interim or construction financing. A variant on this approach is assessing impact fees at the building permit stage but collecting them at the final inspection or certificate of occupancy stage. This has

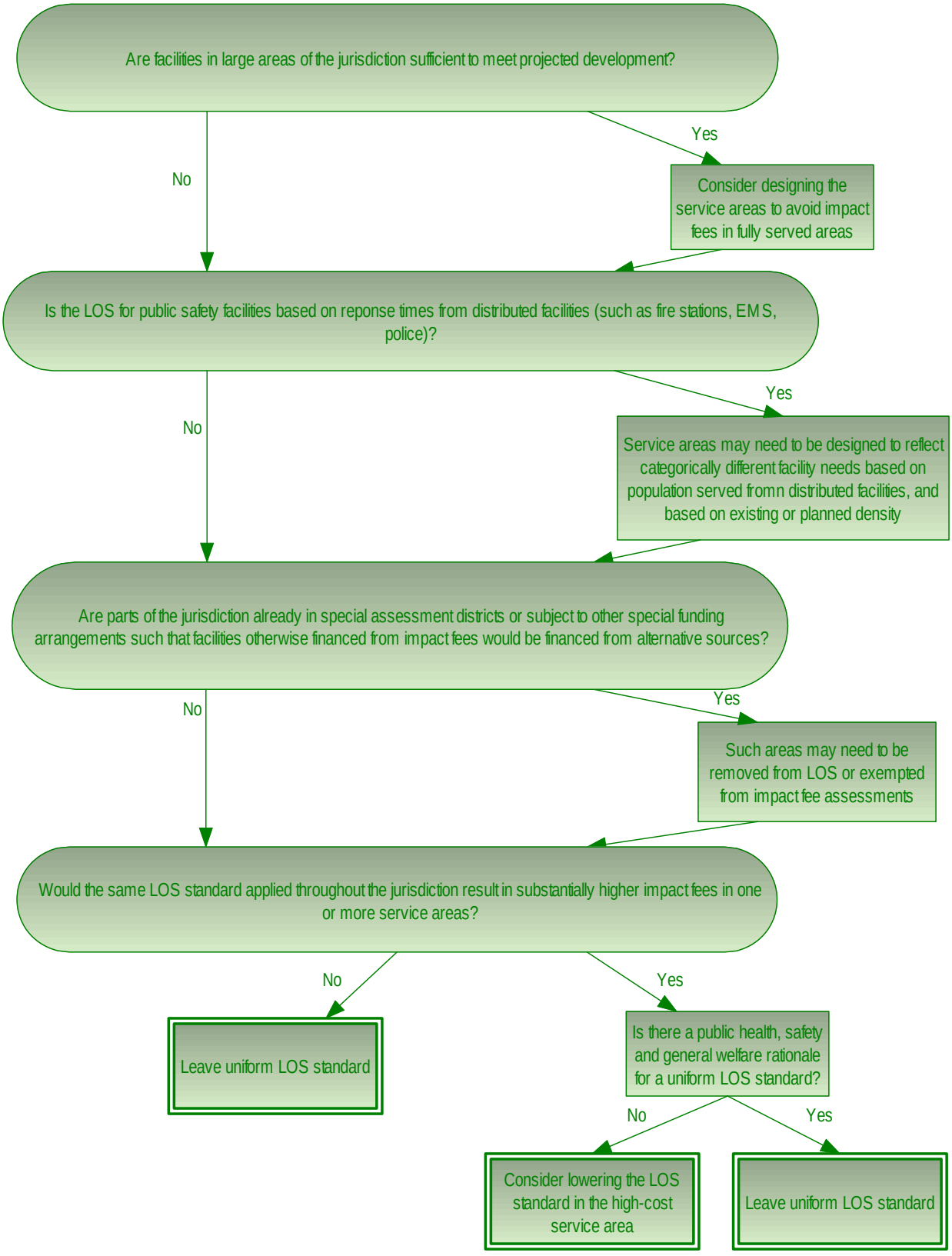
[50] Richard Florida, *The Flight of the Creative Class*, 2005, Collins (New York); *Cities and the Creative Class*, 2005, Routledge (London); *The Rise of the Creative Class*, 2004, Basic Books (New York).

the advantage of allowing local government to budget for the revenue before it is paid and provides the developer with increased certainty on the amount. This is the approach used by Alachua County, Florida in the case study to be reviewed later. Timing payments in this way may help reduce potentially adverse effects of impact fees on housing affordability.

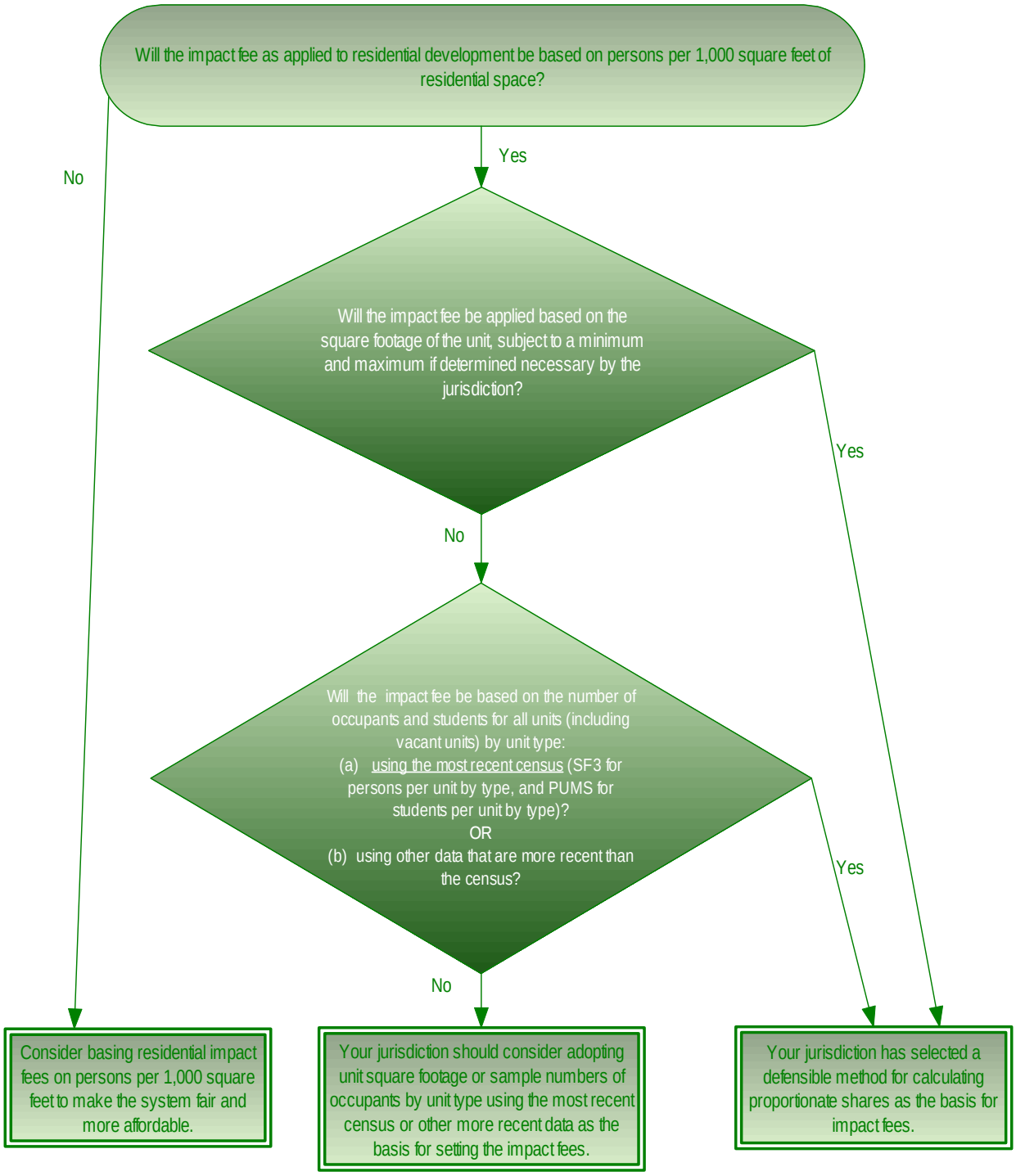
Impact Fee Decision Charts

The following section includes several additional decision charts designed to help practitioners apply the guidance included in this chapter.

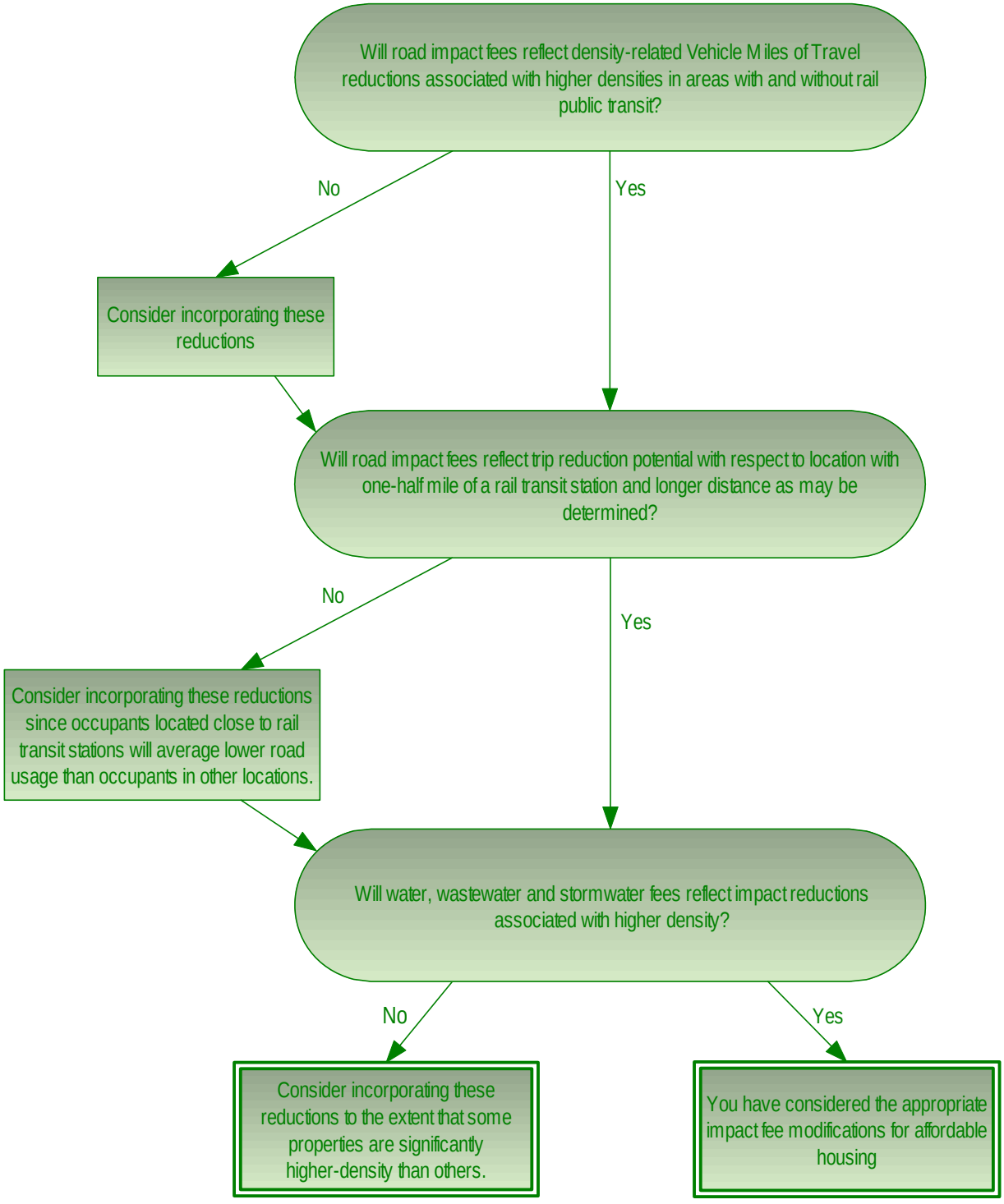
Decision Chart 4.1 Designing a Level of Service (LOS) Area



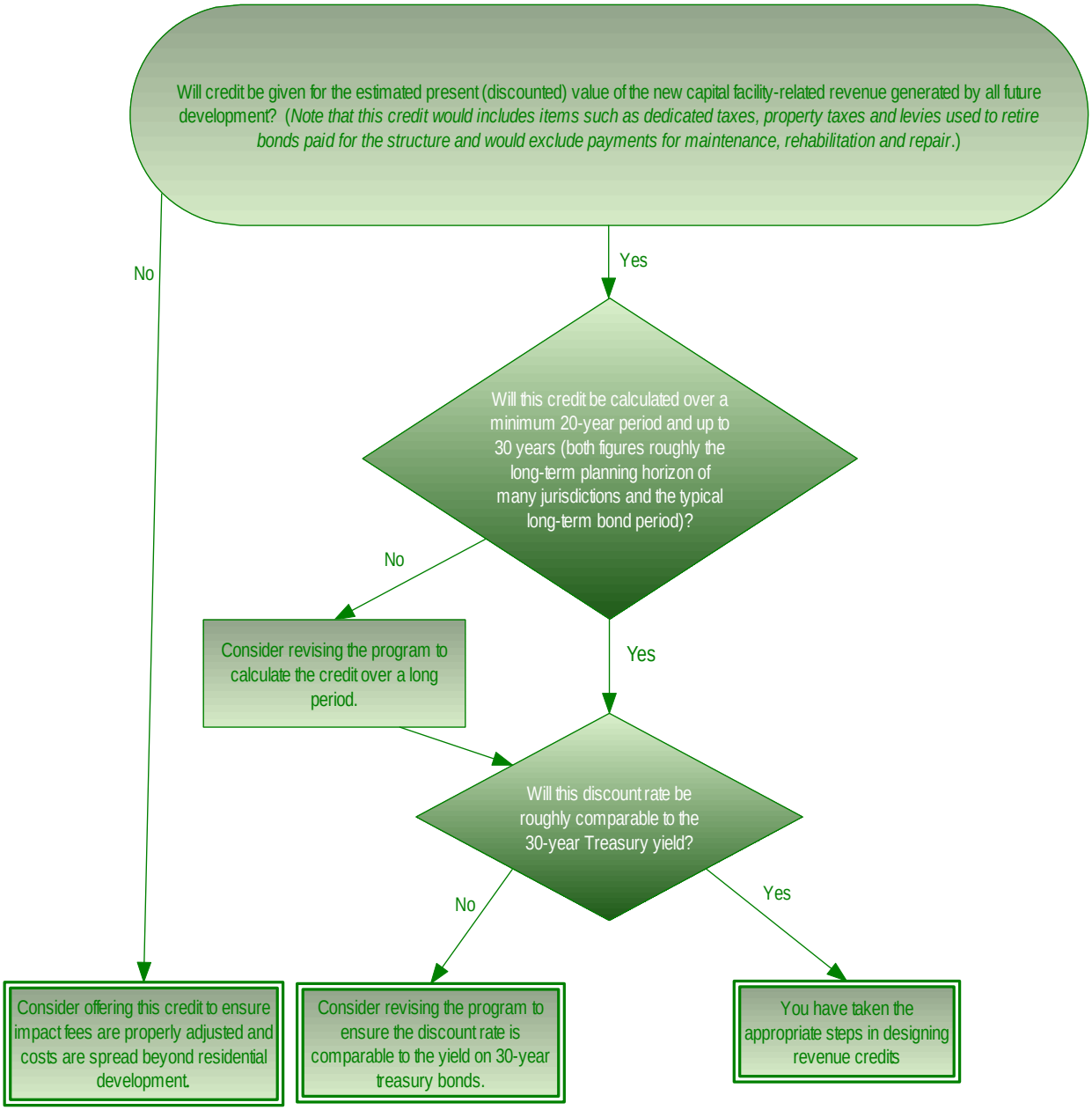
Decision Chart 4.2 Designing for Affordable Housing



Decision Chart 4.3 Including Situation Specific Reductions



Decision Chart 4.4 Assessing Appropriate Revenue Credits



Specific Housing Affordability Measures as Part of Impact Fee Policy

Impact fee design can go a considerable way towards reducing potentially adverse effects of impact fees on housing affordability, but there are other affordability measures that should also be considered. The most important possibility is that even where impact fees are generally charged in an equitable manner, qualifying affordable housing may still need to be *exempted* from fees. Particular relevant circumstances relating to exemptions are reviewed in this section, including exemptions, exclusions, waivers and forgivable downpayment loans.

Exemptions

Exemptions are given when new development does not create a new impact. For example, a home that is removed and rebuilt does not increase its impact on facilities – unless of course the home is made bigger and will over time presumably allow more people to occupy it.

Another potential form of exemption could be the remodeling of a structure formerly used for a non-residential purpose into a residential one. Converting abandoned warehouses into lofts has been popular for a generation and in recent years there has been the conversion of older high-rise office towers into residential units. Sometimes jurisdictions exempt these kinds of conversions on the assumption that they create no new impact relative to that occasioned by the tenants in a prior use. Other jurisdictions, however, impose impact fees on the estimated difference in impact when moving from one use to another, and the full impact fee if the conversion involves a structure that has been vacant for five or 10 years or so.

Reuse and rehabilitation of existing structures is an efficient urban development activity and the view posed here is that it should be encouraged. Moreover, converting a structure from a nonresidential use to a residential one may result in fewer impacts relative to the prior tenants. For example, a 200,000 square foot general office

Collier County: Impact Fee Assistance Program Designed to Promote Affordable Housing and Encourage Rehabilitation

The County has adopted three affordable/workforce housing programs which are funded by a combination of County resources. Two of the programs provide impact fee deferrals to qualified applicants for the lifetime of their ownership of the home. The home must be homesteaded and owner-occupied; however, there is no limit to the number of years an owner may participate in the program and the payment does not balloon at the end of the term of the agreement. The third deferral program is for affordable rental apartments, which provides a deferral from the payment of the impact fees for a term of six years and nine months. The County also provides for the waiver of impact fees (except for Water and Sewer and Educational Facilities Impact Fees) for publicly owned residential housing. – Excerpted from a letter to Alton Colvin, Executive Director Florida Legislative Committee on Intergovernmental Relations from James V. Mudd, Collier County Manager, November 9, 2005.

In addition, the Collier County Community Redevelopment Agency has created the Impact Fee Assistance Program to provide financial assistance to redevelopment projects in targeted areas as a way to encourage rehabilitation of degraded structures. The funding for this program comes in part from Tax Increment Financing.

For each project, the county may provide up to 50% of the total impact fees. There is a maximum amount of funding allocated each year for impact fee assistance, so the program is managed on a "first come, first served" basis as well as an eligibility point system.

building will generate about 1,100 one-way trips during a typical weekday.[51] If converted into 200 units averaging 1,000 square feet each, one-way weekday trips will fall about 70% to about 420.[52] Clearly, the community may gain from such a conversion especially if the building is already vacant or in other ways underutilized.

Many urban areas are ripe or becoming ripe for conversion to other land uses and in the process become revitalized. Exempting impact fees in situations where existing space is being rehabilitated but no new space added can help facilitate revitalization. Indeed, in the office building example above, even adding space to accommodate a doubling of units would still result in a net reduction in trips than were generated by the tenants of the office building.

Exclusions

Excluding certain new development from impact fees may be warranted when alternative revenues are available to finance the very infrastructure that would be financed from impact fees. For example, in Albuquerque, the city does not charge water or wastewater impact fees in areas where federal and state funds are being used to construct related infrastructure. Not only was the area an imminent health hazard but the existing and new homes being built there catered to low-income households. Likewise, DeKalb County, Georgia, will be excluding development in community improvement districts, business improvement districts, empowerment zones, and enterprise zones where alternative financing mechanisms are or will be used to finance the same facilities that would be financed from impact fees.

In these examples, excluded areas are identified clearly on maps, facilities constructed in those areas that may otherwise have been funded from impact fees are identified, and alternative sources of revenue are allocated for their construction.

Waivers

Sometimes it is desirable from a public policy perspective to simply waive all or a share of the impact fees on certain, qualifying residential development. In some states, however, outright waivers may not be allowed and a waiver can be accomplished only by identifying substitute revenue. These forms of waiver are reviewed, along with the concept of the *de minimus* waiver described below.

Outright Waiver. In states that have no impact fee enabling act (such as Florida, Nebraska and Ohio) waivers can be provided. Presumably they are targeted for residential units or their occupants meeting certain conditions and presumably consistent with public policy purposes. In New Mexico, however, the enabling act specifically provides for such an outright waiver.

Substitute Revenues. Most state impact fee enabling legislation requires that waived revenues be replaced with others that are identified. Sometimes this may be Community Development Block Grants and in others a local housing trust. The usual solution is not to waive, however.

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51 Institute of Transportation Engineers, Trip Generation, (2003), for general office building, p. 1158. One-way is total multiplied by 50% to avoid double-counting the same trip.

52 Institute of Transportation Engineers, Trip Generation, (2003), for high-rise apartment building, p. 348. One-way is total multiplied by 50% to avoid double-counting the same trip.

Atlanta, Georgia, has devised a unique way to solve this problem. Because of its already high quality of infrastructure, the city established the level of service for parks and recreation, and public safety *below* the current level of service meaning that for planning purposes it had excess facility capacity. Impact fees thus "recouped" the value of this excess capacity. New residential development in targeted areas defined for housing affordability purposes became eligible for 50% to 100% waivers with the waived revenues replaced by recoupment revenues. Recoupment revenues not used for waivers are then reinvested in the facilities so that over time facility capacity has increased while impact fees were waived or reduced on qualifying affordable housing.

De Minimus. In states with and without impact fee legislation there is the concern that if a substantial amount of impact fee revenue is lost through waivers, then facilities that would have been financed from impact fees will not get built when planned and overall facility quality might erode. The term *de minimus* is used to indicate that it is a very minor amount or low risk.

Although hard statistical evidence is illusive in this regard, the general impression is that waived impact fees constitute a *de minimus* share of the total facility financing package. Even in Atlanta where officials admit freely that the waiver program was too generous, lost revenues have not affected its expansion of facilities to meet new development needs.

Unless experience shows otherwise, it may be reasonable for local governments to waive all or part the impact fees assessed on qualifying affordable housing and assume the impact on revenue needed to provide new or expanded facilities will be *de minimus*. In states with impact fee enabling legislation, local governments may consider inserting *de minimus* language into impact fees ordinances and codes, and noting on capital improvement programs that in the event impact fee revenues fall short of projections because of waivers, other revenue will be generated as needed from such sources as federal and state grants and loans, and allowable inter-fund transfers.

Forgivable Downpayment Loans

There are two concerns about waiving impact fees for qualifying housing. First, what if the short-term market-clearing price for a house is the same whether or not impact fees are charged? In a normally competitive housing market this would be the case. While some development interests would argue that impact fees are simply passed on to home buyers, in fact economic theory shows this not to be the case in the short term. Waived impact fees may not reduce the sales price of the housing resulting in no benefit to the low- and moderate-income buyer and may also deprive the local government of revenue it may need to construct facilities. In this scenario, the builder is the beneficiary of a "windfall" profit.

Second, what if the household for whom the waiver was granted moves and sells the home to a higher-income household – what long-term benefit did the waiver accomplish?

Recognizing these limitations on waiving impact fees directly, a small but growing number of jurisdictions are using a forgivable downpayment loan as an indirect way to waive the fees. Here's how it works:

- The developer pays the impact fee. However, to reduce the financing and administrative costs associated with paying the fee at the building permit stage, the fee is assessed there but collected

upon issuance of the certificate of occupancy (or final inspection – depending on the state), which can be timed to occur roughly coincidental with closing to a buyer.

- The local government collects the impact fee and uses it as it would for all impact fees.

- The local government uses other funds to lend the home buyer an amount equal to the impact fee to be used for the downpayment. The local government uses federal (CDBG), state (SHIP in the case of Florida), or local (housing trust) funds for this purpose.

- The loan to the homebuyer is forgiven over time; for example in Alachua County, Florida, the loan is forgiven at the rate of 20% per year for each year the household remains in the house for up to five years. If the home is sold before then, the remaining balance becomes due without interest.

Technically, these steps do not waive the impact fee. Rather, the impact fee is paid by the developer while the homebuyer is assisted in purchasing the home with a downpayment loan equal to the fee, and the fee is forgiven in five years if the home is not sold by the homebuyer.

Deferred Impact Fee Payment

Martin County, Florida, uses another approach. It allows developers of very low, low, and moderate income housing to have impact fee payments deferred for 10 to 15 years. Relevant features include[53]:

- Buyers of very low and low income housing may apply for a loan from the County for 100 percent of the impact fees assessed on very low and low income housing as defined in the Martin County Comprehensive Plan. Repayment is due upon sale or transfer of the affected property, or at the end of 15 years, whichever occurs first, unless the County chooses to allow refinancing of the loan if the affected housing continues to meet the County's definition of very low or low income housing.

- Buyers of moderate income housing may apply for a loan from the County for 50 percent of the impact fees assessed on moderate income housing as defined in the Martin County Comprehensive Plan. The interest on the loan shall be equivalent to the County's long term borrowing rate at the time of the loan. Repayment of the loan plus interest is due upon sale or transfer of the affected property, or at the end of ten years, whichever occurs first, unless the County chooses to allow refinancing of the loan if the affected housing continues to meet the County's definition of moderate income housing.

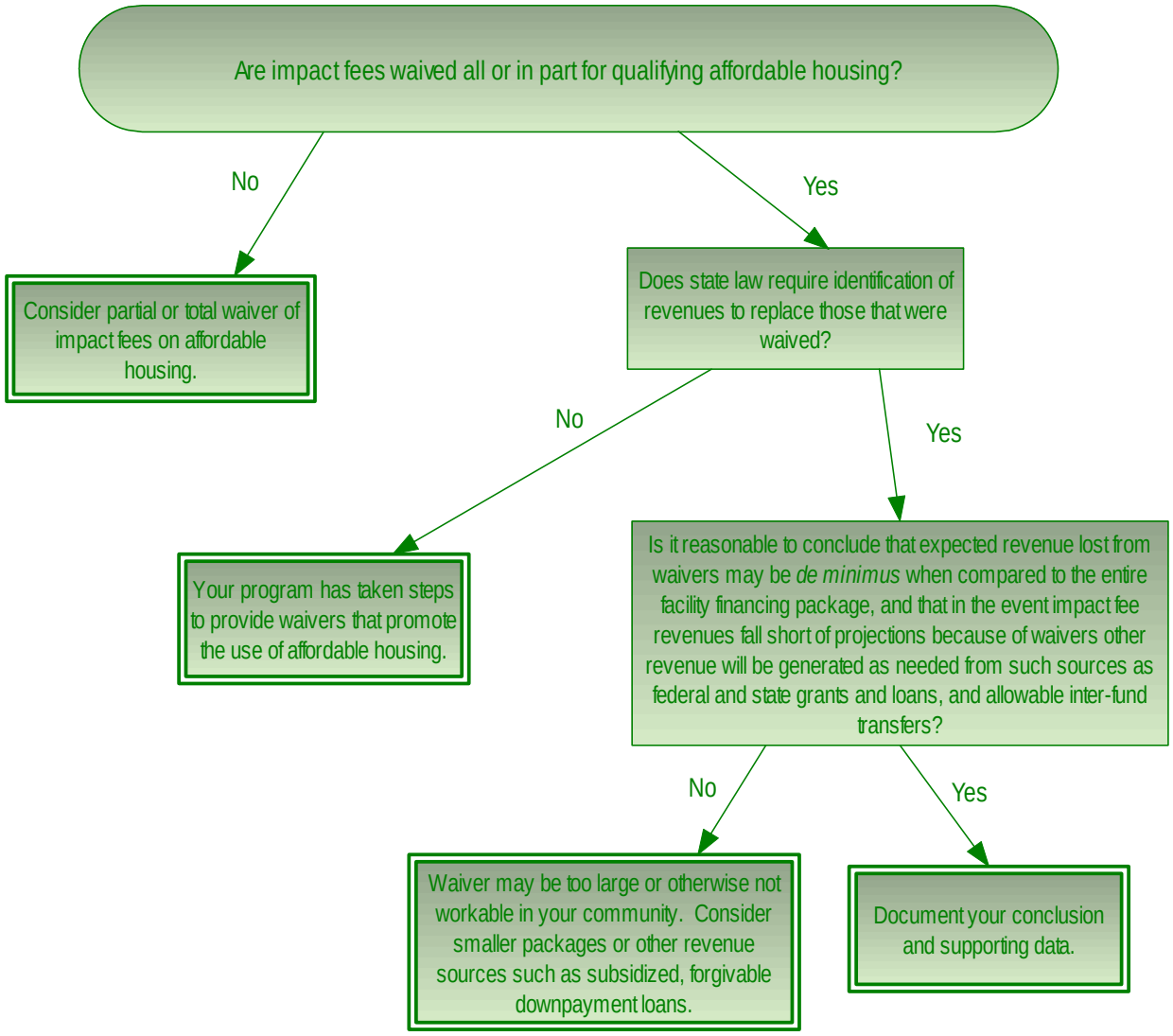
- To receive a deferral of impact fees the sales prices of the homes cannot exceed 90 percent of median area purchase price as established by the United States Department of the Treasury in accordance with section 3(b)2 of the United States Housing Act of 1937. In addition, house size is correlated to household size, so that the home to be constructed does not exceed HUD income guidelines.

[53] See Martin County Ordinance No. 562, pt. 1, § 6.11, 12-7-1999.

Housing Affordability Questions to Consider

The following decision guide poses questions on specific ways in which impact fees should be waived or exempted from certain new residential developments to help advance housing affordability.

Decision Chart 4.5 Affordable Housing



Chapter 5 - Case Studies

The impact fee systems of three jurisdictions are described in this section: Atlanta, Georgia; Albuquerque, New Mexico; and, Alachua County, Florida. These communities were chosen for their innovative approaches to devising progressive impact fees (meaning that the fees are structured to be higher for higher income houses that correspondingly use more services) and sheltering affordable housing from potentially adverse impacts of impact fees. This chapter should be highly useful to communities that are considering impact fees and concerned with affordability.

Atlanta, Georgia

In 1993, the City of Atlanta, Georgia, adopted the state's second development impact fee program and the first since passage of the Georgia Development Impact Fee Act in 1990. It was then and probably remains today a national leader in how it tailors the impact fee program to address affordable housing concerns. Lessons learned may be applicable broadly especially in jurisdictions that have significant prior investments in infrastructure and are growing but not stressed with growth.

The City of Atlanta, Georgia, is the state's largest city at over 435,000 residents. It also has about as many jobs bringing its "daytime" functional population to more than 800,000 as more people commute into work or school than out. The state constitution confers home rule authority to cities thereby providing Atlanta with a broad range of powers and flexibility with which to use them. At the time of the impact fee policy-making process, the city was governed by a mayor, an 18-member council elected by districts (13) and at-large (5), and an elected council president. It is a strong-mayor government in that the mayor proposes legislation including an annual city budget, and administers policies adopted by council. In 1990, the city was anticipating adding about 40,000 new residents and 180,000 new jobs by 2010, based on projections of the Atlanta Regional Commission. The city also had a history of not incurring large debt and thus paying for many new capital items on a pay-as-you-go basis. Since the city did not want to ask voters to authorize more bonds to finance new capital facilities in advance of growth, it saw impact fees as a way to help bridge the financing gap. Yet, it was also more sensitive than most jurisdictions about the effects of impact fees on affordable housing.

Enabling Legislation for Atlanta

Although arguably enabled through home rule authority, the Georgia legislature adopted the Development Impact Fee in 1990 to provide guidance to local governments in how impact fees would be crafted and implemented. The Act enables local governments to assess impact fees for fire and emergency medical, police, road, library, parks and recreation, stormwater, water and wastewater facilities. Initially, Atlanta wished to assess fees on all facilities except libraries since they are administered by counties. Although the city did adopt impact fees for water and wastewater systems, they were quickly dropped in large part because the language of the Act essentially waives the requirement to apply the Act to those facilities. A stormwater fee was considered but never implemented; the city instead is considering a city-wide special

district to manage these facilities. The impact fees adopted by the city generate revenues for parks and recreation, fire and EMS, police, and roads.

It is important to note that although setting impact fees based on the size of the unit is recommended in this Guidebook such was not done in Atlanta. The Atlanta program pre-dates many advances in impact fee practice such as this but the authors have been informed that when the city updates its program it will use the size-based approach. There are so many other pioneering features of the program affecting housing affordability however that Atlanta deserves review as an important case study. Practitioners would be advised to consider many of Atlanta's approaches in addition to considering varying impact fees by the size of the unit at least up to a certain size threshold based on local conditions.

The Act requires service areas for each facility. Recognizing that public safety activities function best as a system of facilities serving the entire city, only one service area was designed for those facilities. Parks and recreation services were considered more locally serving, so three service areas were crafted (see Figure 5-1) . Although two service areas were considered initially for roads (north and south), in the end the city was considered one large service area. This decision was made in part by recognizing that traffic patterns are decided north-south throughout the day and because at 32 square miles the city is not physically very large.

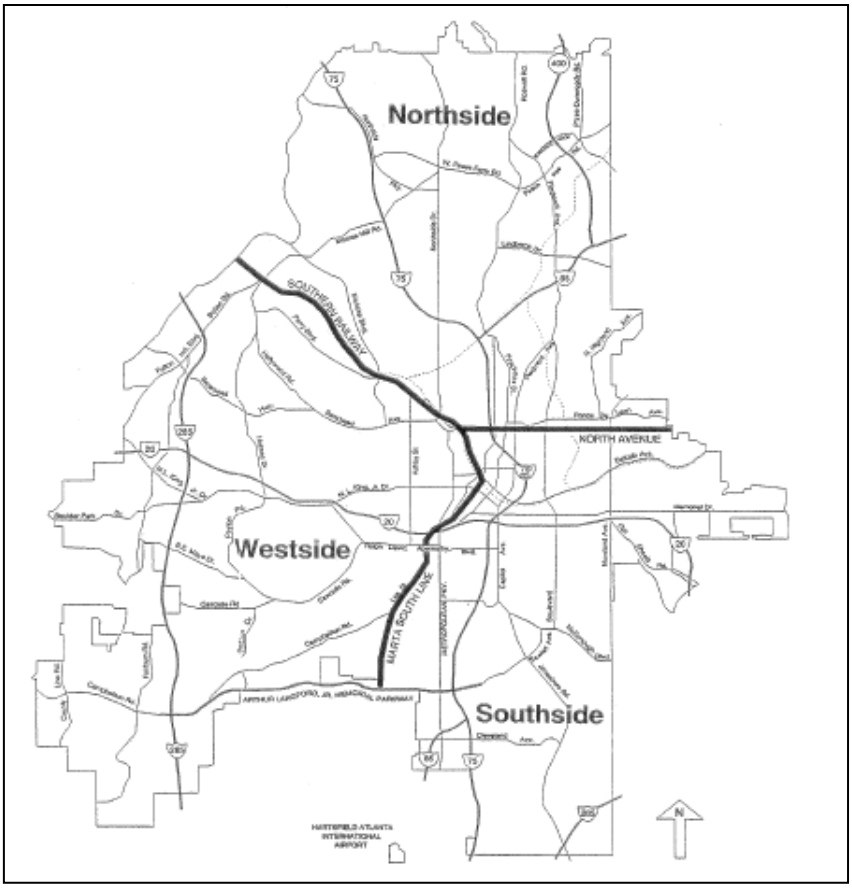


FIGURE 5-1. ATLANTA PARKS AND RECREATION SERVICE AREAS

The Act requires that level of service standards be adopted as a way to measure current capacity deficiencies or surpluses, and in part to help project future development needs. However, to measure development impacts across different land uses, such as residential, commercial, industrial, and institutional, a uniform measure was devised based on functional population. Conceptually, functional population estimates the full-time equivalent number of people any given facility needs to serve during work days ("daytime functional population") or around the clock ("24/7 functional population"). It adopted functional population levels of service for parks and recreation, and public safety facilities – being the first in the nation to do so.

The city inventoried its park and recreation facilities and found that on a city-wide basis it had nearly 7 acres of park per 1,000 functional residents. It adopted a level of service (LOS) standard of 5.75 acres per

1,000 functional residents meaning that it had sufficient excess capacity to accommodate growth to 2010. Impact fees collected for park and recreation facilities could thus be considered “recoupment” revenues under provisions of the Act, essentially recovering for the taxpayers the value of excess capacity it financed for the benefit of new development.

The consulting team also determined that the city had about 500 square feet of fire/EMS space and about 790 square feet of police space per 1,000 functional residents. The city adopted LOS standards of 470 and 660 square feet per 1,000 functional residents, respectively, which was the projected 2010 LOS, based on existing facilities and growth projections. This also created a “recoupment” situation for the city.

For roads, the city adopted an LOS standard calling for a volume-to-capacity ratio of 0.75 for all major roads, meaning that the road system should have 25 percent more capacity than used; the ratio translates roughly into a level “D” in transportation engineering terms. Because the city was then at a 0.71 ratio, this implied that excess capacity existed, but the city determined all the impact fee revenues generated from road impact fees should be used to expand capacity and thus recoupment was not an administrative feature.

The Act requires that costs be estimated based on historical and/or projected expenditures and rendered to a cost per unit of service based on the adopted LOS. That cost must be reduced to reflect any non-local revenue credits such as state or federal grants, and local revenue credits such as the present value of that share of debt service on bonds used to finance the same type of facilities for which impact fees are assessed generated by new development. The fees themselves were calculated as follows in Table 5-1 (below):

TABLE 5-1. ATLANTA IMPACT FEE CALCULATIONS

Parks and Recreation		
Cost Feature	North	South + West
Improvement Cost per Acre	$43,000	$43,000
Land Cost per Acre	$46,047	$10,442
Total Cost per Acre	$89,047	$53,442
Non-Local Revenue Credits	$ 0	$ 0
Local Revenue Credits	$ 0	$ 0
Net Impact Cost per Acre	$89,047	$53,442
Acres per Functional Resident	0.00575	0.00575
Impact Fee per Resident	$ 512	$ 351
Fire/Emergency Medical Service		
Cost Feature	Citywide	
Improvement Cost per Square Foot	$152.00	
Non-Local Revenue Credits	$ 0	
Local Revenue Credits	$ 0	
Total Impact Cost per Square Foot	$152.00	
Square Feet per Functional Resident	0.47	
Impact Fee per Resident	$ 71.44	
Police		
Cost Feature	Citywide	
Improvement Cost per Square Foot	$ 31.00	
Non-Local Revenue Credits	$ 0	
Local Revenue Credits	$ 0	
Total Impact Cost per Square Foot	$ 31.00	
Square Feet per Functional Resident	0.66	
Impact Fee per Resident	$ 20.46	
Transportation (Roads)		
Cost Feature	Citywide	
Cost Per Vehicle Mile Traveled at LOS	$1,869	
Non-Local Revenue Credits	($ 787)	
Net Cost per Mile	$1,082	
Local Revenue Credits	Variable	

Note: Road impact fees are reduced based on property values of different land uses.

The Act allows developers to offer improvements to those facilities that are scheduled for impact fee financing and thereby reduce the fees charged per unit. For example, if a road impact fee is $1 million but the $600,000 road improvement project in front of the development is scheduled to be improved using impact fees in part, the developer may make those improvements (probably at lower cost than the city and earlier than scheduled) and reduce the impact fee accordingly – in this case down to $400,000. The fee schedules for Atlanta appear in Table 5-2.

TABLE 5-2. ATLANTA FEE SCHEDULES

	Land Use Type	Number of Dwelling Units	Pop*/ Unit	Acres per 1,000 Pop*	Acres per Unit	Cost per Acre	Net Cost per Unit
PARKS & RECREATION – NORTHSIDE	Single-family	1	1.60	5.75	0.0092	$89,047	$819
	Multi-family	1	1.11	5.75	0.0064	$89,047	$570
PARKS & RECREATION – SOUTHSIDE & WESTSIDE	Single-family	1	1.60	5.75	0.0092	$53,442	$492
	Multi-family	1	1.11	5.75	0.0064	$53,442	$342

	Land Use Type	Number of Dwelling Units	Pop*/ Unit	Sq Footage/ 1,000 Pop*	Sq Ft per Unit	Cost per Sq Ft	Cost per Unit
FIRE/EMS	Single-family	1	1.60	470	0.7520	$152	$114
	Multi-family	1	1.11	470	0.5217	$152	$79
POLICE	Single-family	1	1.60	660	1.0560	$31	$33
	Multi-family	1	1.11	660	0.7326	$31	$23

	Land Use Type	Number of Dwelling Units	Peak Hr VMT/ Unit	Cost/ Peak Hr VMT	Cost per Unit	Property Tax Credit	Net Cost per Unit
TRANSPORTATION	Single-family	1	1.02	$1,154	$1,177	$190	$987
	Multi-family	1	0.5	$1,154	$577	$107	$470

* Pop refers to functional population. The population numbers adjusted for the daytime commuting population.

The unique ways in which Atlanta facilitates affordable housing production through its impact fee program are also important to understand. Key Atlanta officials, such as Leon Eplan and Fernando Costa, then Commissioner of Planning and Director of Planning, respectively, under the Maynard Jackson Administration, were concerned about the potentially adverse effects of impact fees on affordable housing. To address these concerns, Atlanta became the first jurisdiction in the nation to adopt the following features:

- 50% reduction if within 1,000 feet of a rail transit station.
- 100% reduction if located within an enterprise zone.
- 100% reduction if located within a federally chartered empowerment zone.
- 100% reduction if part of a qualified historic preservation project
- 100% reduction if the unit rents for less than 60% of the regional median rent or sells for less than 1.5 times the regional new home sale price.
- 50% reduction if the unit rents for between 60% and 80% of the regional median rent or sells for between 1.5 and 2.5 times the regional new home sale price.
- Broadens the assessment base for parks and recreation by charging non-residential development.

Georgia law requires that revenues not collected from impact fees must be offset from sources of revenue other than impact fees. This requirement to collect from other sources does not apply to the 50% reduction for being within 1,000 feet of a rail station because studies show that traffic impact is reduced roughly proportionate with this relationship. The analysis indicates that Atlanta remains the only jurisdiction that recognizes this relationship. In all other respects, however, the city is required by law to offset lost impact fee revenues through identified sources. This is where recoupment comes into play.

For parks and recreation, and public safety, impact fees essentially reimburse taxpayers for investments generating excess capacity for the benefit of new development. It is these "recoupment" revenues that are used to reduce the fees assessed on qualifying affordable housing. This approach is used in no other jurisdiction. In addition, although the city does not recoup road impact fees (all revenues are dedicated to capacity-expansion), it has nonetheless been able to offset road impact fees for qualifying affordable housing through bond arbitrage (interest from bond proceeds before bond revenue is spent), community development block grant, and even general fund sources.

Recoupment is based on adopting a level of service standard below the current service level so that at least for a while impact fees reimburse for the value of excess capacity. Yet, Atlanta has been even more creative in sheltering affordable housing from impact fee burdens while *expanding* parks and recreation, and public safety facilities in excess of adopted LOS standards. This is a unique win-win innovation. Here is how it works:

By setting the adopted impact fee level of service standard below current levels – which carries the risk that services over time will be degraded relative to the present – impact fee revenues can be used to offset assessments on affordable housing. Because not all revenues are used for this purpose – more likely about a quarter – the remaining revenue is in fact used to expand capacity and to leverage investment. For example, because parks and recreation impact fees generated new revenue in excess of covering affordable housing offsets, the new revenue could be used as match to leverage even more investment in parks. The effect is that affordable housing is sheltered from impact fee effects yet facility capacity is increased. Moreover, the combination of impact fees leveraging investment means that today Atlanta's current acreage of parks per 1,000 residents is *more* than in 1993. The same is true for public safety.

Atlanta was also the first jurisdiction that expands the base of impact fee assessments across all land uses for parks and recreation. The usual custom is to assess only residential development for parks and recreation facilities, and libraries. (This is also the case in those states where school facility impact fees are assessed, the exception being California where non-residential development is required by statute to also pay school impact fees.) Thus, the entire burden for financing these facilities falls on roughly half to two-thirds of the development base. However, because Atlanta kept park and recreation facility reservation records by type of reservation (company picnic, church league, etc.), the consultants were able to determine that a very high percentage of the formal use of these facilities was for the benefit of non-residential land uses. The city thus had a reasonable basis on which to assess all land uses thereby reducing the magnitude of impact fees assessed on residential property.

Research for this project indicates that no other jurisdiction assessing impact fees is as comprehensive as Atlanta in sheltering affordable housing from potentially adverse effects.

Lessons from Atlanta

More than a decade after implementing its pioneering program, Atlanta is reflecting on its pioneering approach. Several lessons became evident during the case study. First, using the regional median measures for housing affordability in Atlanta during the 1990s meant that because housing values and incomes were lower in the city than in much of the metropolitan area (the city used HUD's regional figures), many more housing units qualified for reductions than if only city-specific value were used. In effect, for Atlanta, the reductions may have been too generous.

Second, not all development in targeted areas needed to have the impact fee reduced. It turned out that several developers of properties in targeted areas had no knowledge of the impact fee reductions and came to pull building permits assuming the impact fee would be paid, only to learn from staff that fees would be waived. This finding suggests that impact fee reductions may need to be targeted to a smaller group or more specific situations.

Third, as the city updates its impact program, it may cut back on the number and nature of reductions. Its initial concern in the 1990s was whether impact fees may affect growth in the city. That concern has dissipated as the city is attracting more higher-income residents yet it is still able to provide affordable housing.

Fourth, Atlanta as elsewhere has learned that impact fees do not by themselves facilitate construction of new facilities but may stimulate leveraging. City officials informed us that parks and recreation impact fees have enabled the city to leverage foundation (like Ford, Rockefeller, etc.) and other investments that result in a higher effective level of service now than in 1992, despite an officially adopted level of service that is lower.

As Atlanta prepares for an update, it is likely to reduce the scope of affordable housing reductions such as those for targeted geographic areas, enterprise and empowerment zones in particular, but retain many key reductions relating to transportation and affordable housing per se. As former commissioners of planning Leon Eplan and Michael Dobbins observed, the broad scale of impact fee reductions did its job of encouraging housing construction in blighted or other targeted areas. Now that Atlanta's housing market is healthy, future reductions should be more targeted.

Legal Issues for Atlanta

Since the Act was adopted in 1990 there have only been two legal challenges in Georgia, both decided favorably to local government. In *Metro Atlanta Home Builders Association v. Cherokee County*, the state Court of Appeal ruled that a single county-wide service area including cities was consistent with the Act even though impact fees are not collected from building permits issued by the cities themselves.

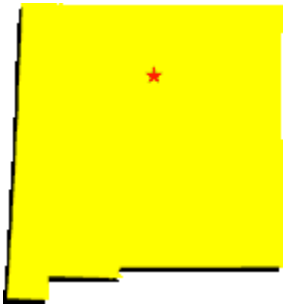
More recently, in *Southeast Legal Foundation v. City of Atlanta*, the federal District Court ruled that the plaintiff had no legal standing to challenge the city's use of only one service area instead of two for roads. In that case, the plaintiff alleged that while most impact fees for roads were collected in the northern part of the city in the areas of Midtown and Buckhead, those revenues were being spent mostly in the south for such purposes as sidewalks along streets. Had the case gone to trial, the City was prepared to show that more than 80% of the impact fees assessed were credited back to developers who constructed road improvements that would have been financed by impact fees instead. Of the remaining funds, much if not

most were used to improve sidewalks in the south so that workers living in the south could get to their jobs in the north – consistent with the city's strong city-wide north-south travel pattern.

Next Steps for Atlanta

Atlanta will undertake a major updating of its impact fee program in the near future. As it does, it will retain key affordable housing features and be more refined in impact fee calculations and assessments on housing. For example, road impact fees may be reduced for situations where development occurs along transit corridors (not just within 1,000 feet of a rail station), or in configurations that reduce vehicle use. The number and size of areas targeted for impact fee reductions will be reduced and fewer homes will likely be eligible for reduced impact fees but all homes meeting affordable housing criteria will remain eligible for reductions. The update will likely raise impact fees, which are currently a modest $1,400 per unit on average. This will provide the city with even more funds with which to leverage non-local and private funding for key facilities. As former commissioners of planning Eplan and Dobbins observed, the real benefit of impact fees to the city was their role in leveraging multiple sources of revenues especially for parks and recreation facilities, and roads.

Albuquerque, New Mexico



In 2005, the City of Albuquerque, New Mexico, adopted an impact fee program that is unique for 1) its attention to differences in facility costs between parts of the city, 2) its reductions in impact fees for attaining land-use efficiencies that by their nature reduce facility impacts, and 3) its outright waivers for affordable housing. Consequently, it is one of the most sophisticated impact fee programs yet adopted. Lessons learned may be applicable broadly especially in jurisdictions that are committed to minimizing potentially adverse effects of impact fees on affordable housing through direct (waiver) and indirect (cost-variation and impact-reduction) approaches.

The City of Albuquerque, New Mexico, is the state's largest city at over 510,000 residents and is projected to reach nearly 625,000 residents by 2025. The state constitution confers home rule authority to cities thereby providing Albuquerque with a broad range of powers and flexibility with which to use them. The city's governance structure can be characterized as a strong-mayor, the position of which serves as the chief administrator for city policy. The city council is composed of seven members elected by district, with a council president elected from among council members.

The City started its impact fee deliberations in the early 1990s then decided to embark on a large-scale, community-driven visioning approach to address issues of urban form, land use and facility efficiencies, equity, long-range capital facility financing, and related "big picture" issues. That process led to the Planned Growth Strategies (PGS) plan which was adopted in 2004. Chief among its many innovations was establishing tiers called "fully served," "partially served," and "unserved." The purpose of the tiers was to recognize that some areas of the city already had most or all the infrastructure needed to serve new development but other areas did not. Also, "fully served" areas were more likely than "partially served" ones to have infill and redevelopment opportunities. From the city's perspective, it would be a more efficient use of existing resources to encourage development in fully served areas – where facilities already exist – and also encourage more efficient development patterns in partially served areas through a pricing

structure in part based on impact fees. The rest of this section reviews how the impact fee structure emerged from this basic planning objective.

The fees went into effect on July 1, 2005.

Enabling Legislation for Albuquerque

The City of Albuquerque is authorized to impose development impact fees. The New Mexico Development Fees Act [5-8-1 to 5-8-42 NMSA 1978] authorizes all cities and counties to enact or impose impact fees on land within their respective corporate boundaries and to pay specified costs of constructing capital improvements or facility expansions with impact fees. Section 5-8-3.B "If it complies with the Development Fees Act, a municipality or county may enact or impose impact fees on land within its respective corporate boundaries." Section 5-8-2.I defines an impact fee as:

> *[A] charge or assessment imposed by a municipality or county on new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development. The term includes amortized charges, lump-sum charges, capital recovery fees, contributions in aid of construction, development fees and any other fee that functions as described by this definition. The term does not include hook-up fees, dedication of rights of way or easements or construction or dedication of on-site water distribution, wastewater collection or drainage facilities, or streets, sidewalks or curbs if the dedication or construction is required by a previously adopted valid ordinance or regulation and is necessitated by and attributable to the new development.*

The statute authorizes specific services to be funded with impact fees. Section 5-8-2. provides the list:

> *"[C]apital improvement" means any of the following facilities that have a life expectancy of ten or more years and are owned and operated by or on behalf of a municipality or county:*
> *(1) water supply, treatment and distribution facilities; wastewater collection and treatment facilities; and storm water, drainage and flood control facilities;*
> *(2) roadway facilities located within the service area, including roads, bridges, bike and pedestrian trails, bus bays, rights of way, traffic signals, landscaping and any local components of state and federal highways;*
> *(3) buildings for fire, police and rescue and essential equipment costing ten thousand dollars ($10,000) or more and having a life expectancy of ten years or more; and*
> *(4) parks, recreational areas, open space trails and related areas and facilities.*

The New Mexico enabling act adopts the proportionate share concept in Section 5-8-7: "[t]he fee shall not exceed the cost to pay for a proportionate share of the cost of system improvements, based upon service units, needed to serve new development."

In Section 5-8-2.G "facility expansion" is defined in the statute as the "expansion of the capacity of an existing facility that serves the same function as an otherwise necessary new capital improvement, in order that the existing facility may serve new development." Section 5-8-2.G further specifies that "facility expansion" does not include "the repair, maintenance, modernization or expansion of an existing facility to

better serve existing development..."

The Act specifies that no impact fees shall be spent to provide new or better facilities for existing development. Furthermore, fees collected for public safety capital improvements and facility expansion can only be spent for public safety capital facilities and facility expansions and not for any other type of improvements or facilities.

A capital improvement plan is required by the Act to be the basis of impact fee programs. Section 5-8-23 requires that "If the governing body adopts an ordinance, order or resolution approving the land use assumptions, the municipality or county shall provide for a capital improvements plan to be developed by qualified professionals using generally accepted engineering and planning practices…"

Therefore, the City of Albuquerque is authorized to adopt public safety impact fees provided that the fees do not exceed a proportionate share of the cost of providing capital improvements to new developments within service areas. Furthermore, those impact fees must be in accord with land use assumptions adopted by the City Council and be incorporated into Capital Improvement Plans. What follows are the calculations for public safety impact fees consistent with these requirements.

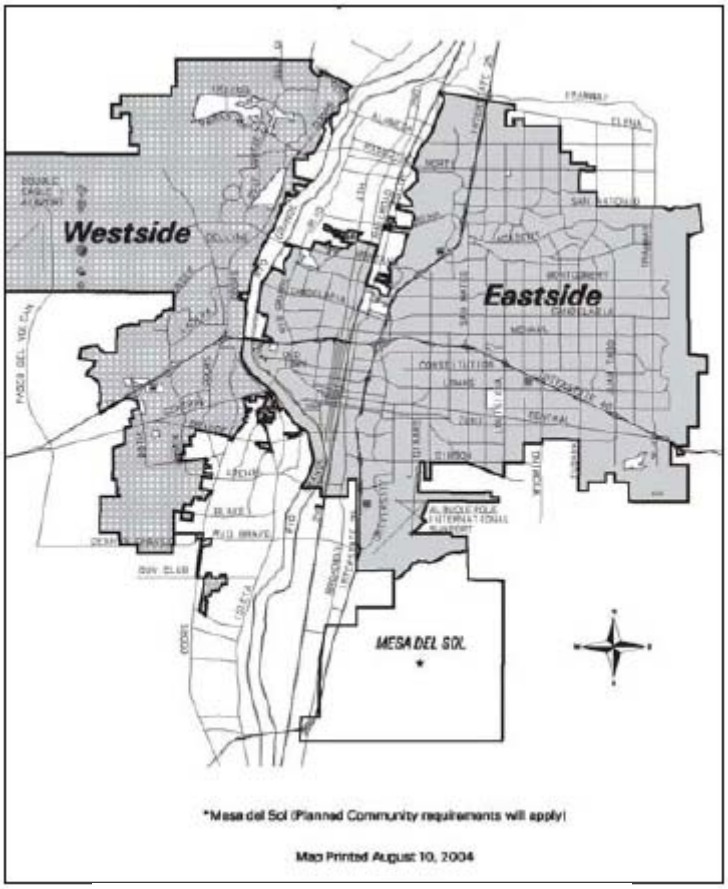


FIGURE 5-2. PUBLIC SAFETY SERVICE AREA

The Act also requires service areas for each facility. The Act also allows different levels of service for individual service areas – similar to other impact fee statutes – but rarely applied. In Albuquerque, the city decided that for public safety facilities not only were two service areas logical but different levels of service within each. The city reasons that although public safety activities function best as a system of facilities serving the entire city, the city is actually divided by the Rio Grande River into eastern and western parts so two service areas were devised (Figure 5-2). For parks and recreation, seven areas were created (Figure 5-3). To account for topographical features creating unique drainage sheds, five drainage facility service areas were created (Figure 5-4). Finally, in recognizing important differences in travel patterns and the extent to which road facilities were fully developed, seven service areas were drafted (Figure 5-5).

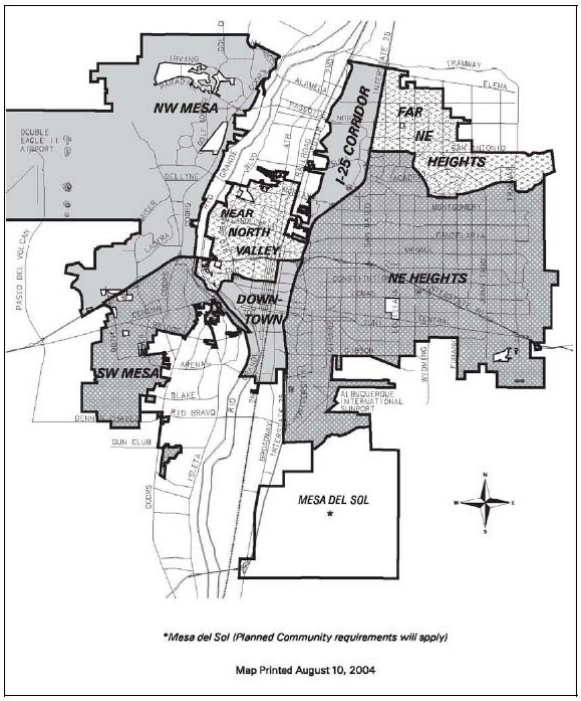


FIGURE 5-3. PARKS, RECREATION FACILITIES AND OPEN SPACE SERVICE AREAS

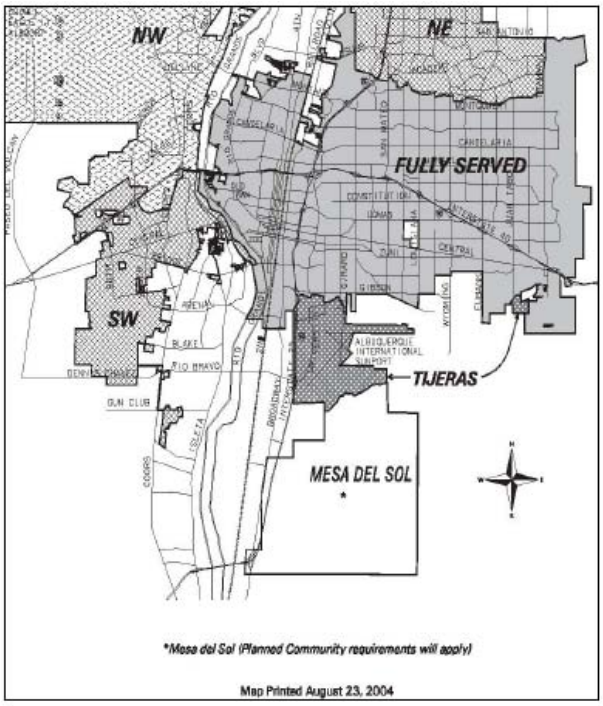


FIGURE 5-4. DRAINAGE FACILITY SERVICE AREAS

The Act requires that levels of service standards be adopted as a way to measure current capacity deficiencies or surpluses, and in part to help project future development needs. Capital improvement plans and costs need to be related to service areas, and impact fees calculated accordingly. Where revenue was known to be available to help finance needed facilities, costs were reduced to a "net" impact cost. For public safety facilities, the level of service standard was based on functional population while for parks, recreation facilities, trails and open space it was based on residents. For drainage it was based on impervious surface, and for roads it was based on travel behavior by land use. Tables 5-3 through 5-6 provide the impact fee calculations for residential structures.

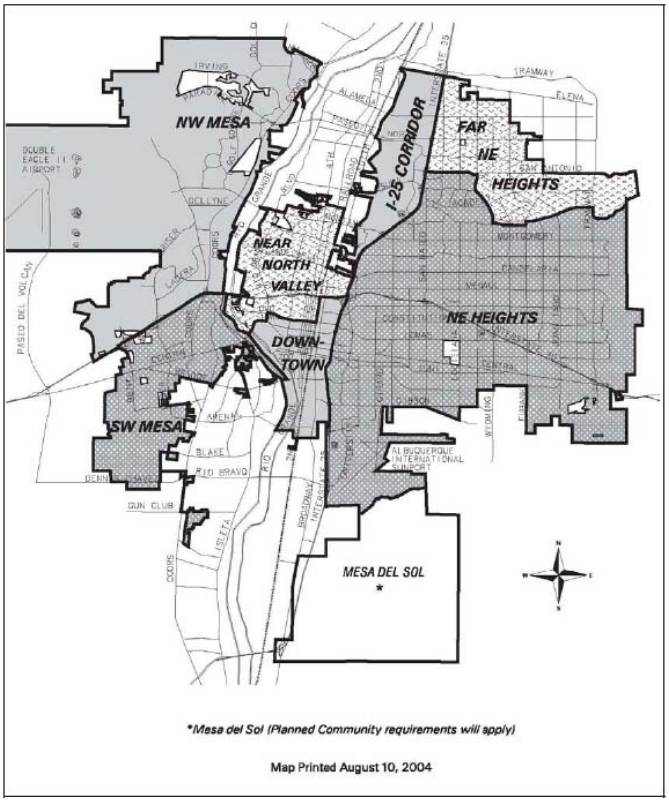


FIGURE 5-5. ROAD FACILITY SERVICE AREAS

TABLE 5-3. ALBUQUERQUE PUBLIC SAFETY LEVEL OF SERVICE, NET IMPACT COSTS, AND IMPACT FEES BY SERVICE AREA

Step		East Side	West Side
New Functional Population 2004 – 2025		47,991	63,779
Total Public Safety Cost per Capita		$371.47	$278.17
Fire and Emergency Protection Levels of Service			
Persons Served per Fire Station		22,886	20,782
New Stations Needed by 2025		3	2
Fire Improvement Costs		$11,395,311	$9,175,144
Fire Cost Per Capita		$237.45	$143.86
Police Levels of Service			
Citywide Facilities, Square Ft. per Capita		0.444	0.444
Citywide Cost per Capita		$94.77	$94.77
Service Area Facilities, Square Ft. per Capita		0.163	0.163
Service Area Costs per Capita		$39.25	$39.54
Police Cost per Capita		$134.02	$134.31
Development Type	Functional Occupants	Unit Costs per 1,000 Square Feet	
		East Side	West Side
Residential	0.743	$275.92	$206.62

TABLE 5-4. ALBUQUERQUE PARKS, RECREATION FACILITY, TRAIN AND OPEN SPACE LEVEL OF SERVICE, NET IMPACT COST, AND IMPACT FEES BY SERVICE AREA

SERVICE AREA	Academy/ NE	Central/ University	Foothills/ SE	North Albuquerque	North Valley/I-25	SW Mesa	NW Mesa/ Volcano
Local Parks (Neighborhood & Community)							
Level of Service per 1,000 People	2.600	2.600	2.600	2.600	2.600	2.600	2.600
Needed Additional Acres	2.13	0.00	8.88	20.07	16.71	71.29	110.44
Acres Available in Inventory	26.49	12.74	47.61	59.00	3.95	81.53	109.02
Acres to be Acquired	0.00	0.00	0.00	0.00	12.76	0.00	0.00
Acquisition Cost per Acre	$125,000	$110,000	$105,000	$125,000	$122,500	$72,000	$120,000
Acquisition Cost	$0	$0	$0	$0	$1,562,708	$0	0.00
Acres to be Developed	2.13	0.00	8.88	20.07	16.71	71.29	110.44
Existing Surplus	0.00	78.17	7.11	0.00	0.00	0.00	22.90
Net Acres to be Developed	2.13	0.00	1.77	20.07	16.71	71.29	87.54
Development Cost per Acre	$175,000	$175,000	$175,000	$175,000	$175,000	$175,000	$175,000
Development Cost	$373,555	$0	$309,225	$3,511,690	$2,923,830	$12,475,645	$15,319,465
Facilities Cost per Acre	$226,007	$226,007	$226,007	$226,007	$226,007	$226,007	$226,007
Facilities Cost	$482,434	$0	$399,354	$4,535,228	$3,776,027	$16,111,871	$19,784,567
Total Cost Local Parks	$855,989	$0	$708,579	$8,046,918	$8,262,565	$28,587,516	$35,274,864
Cost per Capita	$1,042.62	$0	$207.49	$1,042.62	$1,285.80	$1,042.62	$830.45
Less Grants	($70.41)	$0	($14.01)	($70.41)	($86.84)	($70.41)	($56.08)
Less Bond Credit	($208.52)	$0	($41.50)	($208.52)	($257.16)	($208.52)	($166.09)
Net Local Park Cost	*$763.69*	*$0*	*$151.98*	*$763.69*	*$941.80*	*$763.69*	*$608.28*
Trails							
Cost per Capita	$21.88	$21.88	$21.88	$21.88	$21.88	$21.88	$21.88
Less Grants	($1.48)	($1.48)	($1.48)	($1.48)	($1.48)	($1.48)	($1.48)
Less Bond Credit	($4.38)	($4.38)	($4.38)	($4.38)	($4.38)	($4.38)	($4.38)
Net Trails Cost	*$16.03*	*$16.03*	*$16.03*	*$16.03*	*$16.03*	*$16.03*	*$16.03*

TABLE 5-5. ALBUQUERQUE NET IMPACT COSTS, PROJECTED IMPERVIOUS ACRES, AND DRAINAGE IMPACT FEE PER ACRE BY SERVICE AREA

Service Area	Net Impact Costs	Total Area (Acres)	Projected Impervious Acres, 2000-2025	Cost Per Impervious Acre
NW	$ 55,015,528	15,490	3,915	$ 14,052
SW	$ 35,393,166	9,021	2,757	$ 12,836
Fully Served	$ 0	40,250	2,009	$ 0
Tijeras	$ 2,933,604	2,611	221	$ 13,290
Far NE	$ 15,044,434	11,753	1,474	$ 10,208

TABLE 5-6. ALBUQUERQUE LEVEL OF SERVICE, NET IMPACT COST, ROAD IMPACT FEES BY SERVICE AREA

Land Use	Trip Rate (PM Peak)	Trip Rate (Daily)	Assessable Trip Length	Total Trip Length	% New Trips	Total Impact Cost	Annual Gas Tax Proxy	Gas Tax Proxy Offset	Net Impact Cost	Downtown	NE Heights	Near North Valley	Far NE Heights	I-25 Corridor	NW Mesa	SW Mesa	Fee
Single Family Detached																	
Less than 1,500 sf	0.68	6.35	6.28	6.78	100%	$3,617	$17	$233	$3,384	$0	$0	$0	$1,069	R2,113	$2,626	$2,702	N/D
1,500 sf to 2,499 sf	1.02	9.57	6.28	6.78	100%	$5,425	$25	$351	$5,075	$0	$0	$0	$1,585	$3,160	$3,933	$4,046	$3,068
2,500 sf or Larger	1.14	10.74	6.28	6.78	100%	$6,063	$28	$394	$5,670	$0	$0	$0	$1,754	$3,521	$4,388	$4,516	N/D
Multi-Family	0.67	6.72	4.19	4.69	100%	$2,376	$12	$170	$2,206	$0	$0	$0	$512	$1,276	$1,651	$1,706	$1,902
Condominium/Townhouse	0.52	5.86	4.19	4.69	100%	$1,844	$11	$148	$1,695	$0	$0	$0	$218	$885	$1,212	$1,260	$1,657
Mobile Home Park	0.60	4.99	4.29	4.79	100%	$2,178	$9	$129	$2,049	$0	$0	$0	$765	$1,344	$1,629	$1,671	$1,687
Retirement Home	0.35	3.71	2.39	2.89	100%	$709	$4	$58	$651	$0	$0	$0	$74	$335	$462	$481	$828
Congregate Care Facility	0.20	2.02	3.09	3.59	71.6%	$375	$2	$28	$347	$0	$0	$0	$67	$193	$255	$264	N/D

By and large, these fee schedules are notable for their treatment of affordable housing in two significant respects. First, the service areas are carefully designed with respect to parks, recreation facilities, trails and open space, drainage, and road facilities. Generally, the more built-out and compact an area, the lower the fee – in several cases being zero. In effect, when existing facilities are sufficient to meet future demand no impact fee need be assessed. On the other hand, the lower the investment in facilities and the greater the projected growth, the higher the fees. The effect is to encourage infill and redevelopment in closer-in areas where excess capacity exists while charging substantial fees where new facilities are needed to accommodate growth. It is possible that some development may be lured away from lower-density areas where new facilities are needed and into higher-density ones where facilities that can accommodate development needs exist.

Second, the fees are based on the size of structures and in particular residential units. Census data show clearly that larger dwellings on average have more residents than smaller ones (such as shown in Tables 4-2 and 4-3 above). By apportioning impact fees based on dwelling unit size, the smaller and more affordable residential units pay a lower fee than larger ones.

By themselves, these two features are notable improvements in impact fee policy and "Smart Growth" friendly. The City is going further, as will be seen in the next section.

Special Affordable Housing Provisions for Albuquerque

The City of Albuquerque has taken two additional actions to reduce the potentially adverse effect of impact fees on affordable housing: waiving fees; and, encouraging designs and configurations of new development to reduce facilities impacts – thereby reducing fees potentially for all affected housing stock.

New Mexico's impact fee Act enables local governments to waive impact fees on affordable housing. At 5-8-3, the Act allows that a "municipality or county may waive impact fee requirements for affordable housing projects" while 5-8-1 defines affordable housing as "any housing development built to benefit those whose income is at or below eighty percent of the area median income; and who will pay no more than thirty percent of their gross monthly income towards such housing." The City is taking advantage of these statutory provisions to waive or reduce impact fees for qualified housing in the following respects:

- Impact fees for owner-occupied housing affordable to households earning 80% or less of the Metropolitan "area median income" (AMI) are waived completely.

- Impact fees for owner-occupied housing affordable to households earning 80% or less of AMI within "Planned Village Development Zones" – essentially areas targeted for compact suburban villages, and "Infill Development Zones" – essentially areas targeted for urban-scale infill and redevelopment, are waived completely.

- Impact fees for the affordable units in projects located within certain Centers and Corridors identified in the Comprehensive Plan are waived completely.

- Impact fees for affordable units within mixed-income projects located elsewhere are reduced by 60%. The City defines "mixed-income projects" as (a) for owner-occupied housing, not less than 20% or more than 50% of the total owner-occupied units in the development affordable to

households earning 80% or less of AMI and at least 40% of remaining units affordable at 120% or more of AMI, and (b) for rental housing, not less than 20% or more than 40% of the total rental units in the development affordable to households earning 60% or less of AMI and at least 30% of the total units serving families at 80% or more of AMI.

In addition, the City is finding through policy-making that certain developments by their nature in specific parts of the city can lead to efficiencies, such as reducing travel by providing employment or shopping services near existing residential areas. It thus reduces impact fees for nonresidential development from 30% (for retail) to 70% (for industrial) west of the Rio Grande River, an area that is devoid of substantial employment, shopping, or service opportunities. While not directly related to affordable housing, the policy recognizes that achieving the jobs-housing balance will nonetheless help advance housing affordability by reducing costs associated with commuting.

During 2005 and 2006, the City anticipates adjusting fees downward for many types of development, including housing, in a variety of targeted areas.

How will the City offset lost revenue and continue building new facilities? Where facilities already exist and where efficiencies can be attained where new facilities are needed, the lost revenue is *per se* not needed. The real revenue that is lost comes from waiving fees on certain housing where fees would be otherwise assessed. In other states that enable fee waivers, replacement revenues need to be identified but this is not the case in New Mexico. One theory is that in the scheme of things the lost revenue is *de minimus* and not sufficient to warrant concern at least from a legal perspective. Another is that the general fund will be used to fill in revenue gaps as needed to provide facilities when needed. The general fund includes tax revenue from existing and new development, including taxes paid by occupants of affordable housing, so it would be a matter of public policy that everyone in the community would offset revenues through impact fee waivers on affordable housing.

Legal Issues for Albuquerque

After adopting impact fees in late 2004 but having not implemented them until mid-2005, the New Mexico legislature considered amending the Act to undercut the City's program. It would have done so by disallowing "marginal cost" calculations of impact fees, a term used in the Planned Growth Strategies (PGS) to guide impact fee calculations. The bill would instead require "average cost" calculations. The bill passed the House but failed to be moved out of a Senate committee before adjournment. It is uncertain how the amendment would actually have changed the City's program since, technically, the fees were actually calculated based on long-term average cost principles (total future costs divided by total future development). Since the law would not have required that the same impact fee be assessed throughout a jurisdiction -- which was supportive of the principles of apportioning impacts based on differences in costs by service areas – experts were uncertain what practical down-side effects there would be.

Lessons from Albuquerque

It may be too early to learn many lessons from Albuquerque's unique approach, especially as it relates to affordable housing, but some may be apparent. First, the City has shown that multiple service areas reflecting substantially different levels of facility availability between them can result in much lower (and sometimes no) impact fees where sufficient facilities already exist. Care must be taken not to make service

areas too small, however, as this may reduce revenue to levels below those needed to actually make facility investments.

Second, the City is pioneering efforts to include impact fee reductions for certain developments that reduce facility impacts through an across-the-board adjustment. Normally, such adjustments are done on a case-by-case "independent fee calculation study" that could be expensive, time-consuming, and contentious. Time will tell whether actual impacts were reduced. Nonetheless, the logic would appear sound, and if overall facility impact reductions are somewhat less than assumed, they may still be more than would have occurred in the absence of such policy.

Third, the City may have one of the most aggressive approaches to reducing potentially adverse effects of impact fees on affordable housing. The extent to which this may lead to delay in constructing facilities or require significant contributions from the general fund will not be known perhaps for years. Even if these outcomes are realized, the City's approach may lead to more dispersion of affordable housing, improved jobs-housing and workforce-housing balance, more stable neighborhoods, greater housing choices, and other benefits that may offset the costs.

From the broader perspective, one must not lose sight that the whole impact fee approach pursued by Albuquerque is rooted in its PGS policy, a variation of a "Smart Growth" policy. At its heart, the PGS seeks to encourage infill and redevelopment, encourage development to go where facilities exist and away from areas where they don't, increase housing options, improve housing affordability, and result in more efficient land uses, among other things. Impact fees merely help implement these and related policies, not guide them.

Alachua County, Florida

Alachua County is a moderately fast growing county in north-central Florida, about 100 miles north of Orlando, and home to the University of Florida, the state's largest university and the County's largest employer. During the 1990s, it grew from about 183,000 to 218,000 residents, or a little less than 20%. (Florida grew by about 23% during the same period.) As in many growing jurisdictions throughout Florida, impact fees have long been considered one option to facilitate new development without raising taxes or imposing lower standards of service on existing development.

The County initially adopted a road impact fee in 1991 (a flat $686 per single-family unit) but repealed it in 1993 principally because of concerns about the effect of impact fees on housing affordability. As growth continued and along with it demand for new facilities increased yet revenues available for new facilities could not keep pace, interest in impact fees was renewed in the early 2000s. In 2004, a technical report was prepared covering public buildings, fire, rescue, parks, and roads, and in 2005 all the fees except those for rescue and public buildings were implemented. To address affordable housing concerns, the County also implemented a pioneering affordable housing impact fee set-aside program. The discussion leading to this program and how it works may be instructive to other communities.

Alachua County's population in 2005 was estimated at 230,000. The largest city is Gainesville which has a population of about 100,000. More than half the county population lives in unincorporated areas. In Florida, all counties have home rule powers which, when combined with police powers, provide local governments with considerable flexibility to address problems. The county commission is composed of five elected officials serving staggered four-year terms. The chairman is selected annually by the board.

In the early 2000s, county commissioners began to express their concern about the county's ability to expand facilities to meet development needs given its current funding levels. It was also concerned about affordable housing.[54] In 2003, the County commissioned a study into affordable housing needs. It found that production of affordable housing requires proactive measures through policies and financial incentives.

After that study was issued, the County engaged Dr. James C. Nicholas of the University of Florida in 2004 to prepare a technical report for impact fees to help finance public buildings, fire/rescue, parks, and roads.[55] Both studies led the County to adopt impact fees for three facilities (public buildings and rescue were deferred) but with an impact fee set-aside program for affordable housing, details of which will be discussed later.

Enabling Legislation for Alachua County

In Florida, impact fees are based on case law emanating from the 1970s and refined through the early 1990s, with little change in case law since then (see Nicholas, Nelson and Juergensmeyer 1991; Juergensmeyer and Roberts 2001). In addition, state planning law (Chapter 163 Part II, F.S.) requires local governments to project capital facility needs and identify revenues sufficient to fully fund them. Implementing state law is Rule 9J-5 of the Florida Administrative Code, which identifies impact fees as a potential source of revenue to help finance capital improvements.

Although Florida does not have an impact fee enabling statute, Florida case law requires that communities meet the "dual rational nexus test" (Nicholas, Nelson & Juergensmeyer 1991). This test has two major components:

(1) The facilities to be charged to new development as impact fees must be needed to serve that new development, and

(2) The funds collected as impact fees must be earmarked and spent for the purposes for which they were collected.

Implied in this test is that no impact fee can exceed a pro rata or proportionate share of the anticipated costs of providing new developments with capital facilities.

Today, impact fees in Florida are used to finance a wide range of activities including but not limited to schools, parks, beaches, trails, open space, public safety, public buildings, roads, drainage, water, wastewater, emergency shelters, boat docks, community centers, cemeteries, and golf courses.

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[54] The online affordable housing needs study and the appendix can both be accessed via: http://growth-management.alachua.fl.us/housing/housing_study.php.

[55] The technical report by Dr. Nicholas can be found in the public hearing materials package at http://publicinformation.alachua.fl.us/documents/impact_fees/092804 Impact Fee Public Hearing.pdf.

Impact Fees in Alachua County

The method employed in the Alachua County impact fee program is the so-called "needs driven" approach, also known as the "standards approach." This method begins by identifying the level of service for a facility or service, such as 3 acres of parks per 1,000 residents. This would convert to 131 square feet of park area per capita. It would follow that a new home with 2.5 persons in residence would need 327 square feet of park area in order to maintain that standard. Using the historic or projected costs of the jurisdiction, the cost for providing an acre of parks is calculated and then applied to the needs of particular units or types of development. If park costs per acre are found to be $20,000, the cost per square foot would be $0.46, the cost per capita would be $60 and the cost per residence would be $150.

The alternate method is the so-called "improvements driven" approach. This approach begins by developing an improvement program for a service such as parks. The costs of the growth-serving park improvements are then spread over the units of growth expected during the life of the improvement program. If the level of service is 3 acres of parks per 1,000 residents and if parks cost $20,000 per acre in the future, the cost would be the same as that of the needs driven calculation. However, it is a rare occurrence when future costs for capital improvements, especially land acquisition, are equal to historic costs. The result is that improvements based impact fees tend to be higher than needs based.

The first set of data needed to calculate impact fees are the land use assumptions, shown in Table 5-7. These data are drawn from the census and other available data from the Alachua County Comprehensive Plan. Between 2002 and 2003, the unincorporated area of the County lost population. This was due to annexations by the City of Gainesville. All the fees except roads are assessed county-wide since those facilities serve county-wide needs.

TABLE 5-7. LAND USE ASSUMPTIONS

	2000	2004	2005	2009	2010
COUNTYWIDE					
Population	215,498	225,501	229,967	248,722	253,643
Dwelling Units	95,113	99,528	101,499	109,777	111,949
Households	87,509	91,571	93,384	101,001	102,999
Res. Floor Area	171,203,400	179,150,337	182,698,225	197,598,576	201,507,875
Office Floor Area	9,405,834	10,391,501	10,577,108	11,317,313	11,557,267
Ind. Floor Area	9,549,169	10,270,777	10,405,283	11,125,264	11,356,194
Retail Floor Area	8,034,555	8,617,640	8,735,609	9,181,358	9,355,909
Total Area	198,192,958	208,430,255	212,416,225	229,222,511	233,777,245
UNINCORPORATED					
Population	104,479	97,388	100,114	111,725	114,814
Dwelling Units	47,535	44,309	45,549	50,832	52,237
Households	43,350	40,408	41,539	46,357	47,638
Res. Floor Area	85,563,000	79,755,787	81,987,886	91,497,211	94,026,841
Office Floor Area	7,793,405	8,181,599	8,763,889	9,413,595	9,576,021
Ind. Floor Area	5,545,421	5,744,287	6,042,586	6,484,359	6,594,802
Retail Floor Area	5,515,470	5,707,971	5,996,722	6,337,375	6,422,538
Total Area	104,417,296	99,389,643	102,791,084	113,732,539	116,620,202

SOURCES: Bureau of the Census, 2000 Decennial Census; Alachua County, March 2004; Florida Statistical Abstract, various years; Bureau of the Census, Annual Estimates of Population for Counties of Florida: April 1,2000 to July 1,2003 (CO-EST2003-01-12); Bureau of Economic and Business Research, Florida Population Studies: Projections of Florida Population by County 2003-2030, Bulletin 138, February 2004; Bureau of Economic and Business Research, Florida Estimates of Population, January 2004. Fishkind & Associates, March 19, 2001, memo to Ken Zeichner, Alachua County Principal Planner. Note: The population reported is the total population less those institutionalized.

These assumptions were supplemented with other data on service standards, impact costs, non-local revenues, and new revenues new development may generate that may be used to help finance the same facilities for which impact fees are assessed. The impact fee technical report used these land use assumptions plus cost and revenue data to prepare impact fees for public buildings, fire, rescue, parks, and roads. Except for public buildings and rescue, all fees were adopted. The impact fee calculations for those facilities are summarized in the Appendix A.

Impact fees for all housing units are assessed on a per-square-foot basis for all residential units. Although the technical report recommended that impact fees top-out for homes larger than 3,900 square feet, the impact fee advisory committee recommended and the County Commission adopted a fee that tops-out at 2,600 square feet.[56] This is purely a policy decision. To further reduce potential effects on housing affordability, the County reduced the road impact fees (the largest of those implemented) to 65% of the potential amount that could be assessed. This was also purely a policy decision. In this case, the concern was that because road impact fees would be by far the largest of all fees, they may impact more on housing affordability. This approach was endorsed by a coalition of residential and commercial developers.

The County's assessment approach is very much in keeping with the guidance contained in this document. It means that larger homes will be charged more than smaller ones. Only a few jurisdictions apply impact fees in this way with most assessing fees based on type of dwelling (single-family detached, townhouse, apartment, manufactured home, etc.) and sometimes by type that is tiered reflecting different size categories. The Alachua County approach is thus designed to reduce potentially adverse effects of impact fees on lower-cost housing because, usually, smaller homes cost less than larger ones. The rationale is sound because larger homes on average have more occupants than smaller ones (see Table 4-2).

Mechanically, impact fees are assessed at the building permit stage but collected prior to the issuance of the Certificate of Occupancy (when the home is finished and ready for occupancy.) That is, the size of the house is determined when application for a building permit is made and the fee is assessed based on the total number of square feet up to 2,600.

Affordable Housing Impact Fee Relief Program for Alachua County

In response to information presented in the 2003 affordable housing study and local residential developers, Alachua County established an *Affordable Housing Impact Fee Relief Program*. In 2005, the County apportioned $100,000 into the fund. Here is how it works: Qualifying homebuyers must have gross annual incomes less than 80% of Area Median Income, adjusted for family size, as established annually by the United States Department of Housing and Urban Development. In 2004, the most recent year applicable, the median family income was $52,200[57] of which 80% would be $41,760.[58] It is difficult to tell how many households seeking to purchase new homes would benefit from this approach, however.

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[56] These draft reports are not official but give some insight into deliberations.

[57] From http://www.web-mtg.com/Public/florida_news/florida_median_income_areas_cities_counties.htm#median_income_2004_florida_counties accessed September 9, 2005.

[58] Table 5-7 indicates that the average household size was 2.41 in 2004. Assuming 5% down, 30-year period, 6% interest, and $300 other monthly obligations, such a household could afford to purchase a home of about $93,000. Payments would be $675 per month.

The maximum purchase price of a qualifying single-family home cannot exceed the maximum allowable purchase price as established in the Alachua County State Housing Initiatives Partnership Program Local Housing Assistance Plan (2004). That plan, adopted in 2004, capped purchase prices at $131,603 for new construction and $103,000 for existing homes. The 2006-2008 SHIP Local Housing Assistance Plan, adopted in 2005, caps purchase prices at $140,000 for new construction and $103,000 for existing homes. (Note: an existing home would be subject to payment of impact fees in the case where a permit is issued to build additional living space.) The most recent federal income tax return is used to verify household income and family size.[59]

For qualifying sale of new homes to low-income households, the impact fees assessed at the building permit stage are turned into a "soft second"[60] mortgage at the certificate of occupancy stage with 0% interest as a deferred mortgage over five years. At the end of each year, 20% of the second mortgage is forgiven and at five years it is forgiven completely. The balance of the second mortgage is due on sale or refinance if homes are sold or refinanced within the five-year term, regardless of the buyer's or seller's current income. No income tests are necessary after the initial assistance is provided to the buyer as the soft second mortgage is not transferable.

The extent to which this program is effective cannot be immediately known. The County budgeted $100,000 in general revenue to fund the first year of the program, but as of October 1, 2005, no funds have been expended for this purpose. Nevertheless, it may be too early to assess the effectiveness of this program as impact fees have been assessed only on building permit applications submitted after March 28, 2005. Community outreach by county staff to realtors, builders, and manufactured housing dealerships is in the initial stage. Other potential beneficiaries include homeowners with room additions or accessory dwellings, where building permits are being issued. Local market rate home builders are simply not building homes meeting the affordable housing parameters in unincorporated Alachua County. Indeed, a recent Internet search of homes[61] that would fit the affordable price range for the average household at low income found only 13 new homes of 166 on the market meeting the price parameters, and all these were on one condominium project. However, affordable housing providers do produce new housing under $140,000 in Alachua County. The Alachua County Property Appraiser's sales records indicate that 22 new homes sold between September 2004 and January 2005 for a sales price between $85,000 and $138,100, for an average of $114,750.[62]

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59 If no tax return is available, then eligibility is based on verification of current income and family size of the household intending to reside in the unit.

60 Also called a "silent second" in some applications. This term is used by the County to characterize its program.

61 www.realtor.com accessed September 9, 2005, for Gainesville and surrounding communities searching for homes built in 2005 (thus "new" homes) under $145,000.

62 Alachua County Property Appraiser website sales search at www.acpafl.org/saleresults.asp for homes built in 2004-2005 between September 2004 to September 2005 in unincorporated Alachua County (city code 0400).

Lessons from the Case Studies

The case studies presented here offer some real-world examples of the affordable housing guidance contained in this Guidebook. Currently, very few communities waive impact fees for affordable housing entirely. The Albuquerque case study shows this can be done where state enabling legislation allows waivers without identifying replacement or substitute revenues. The Atlanta case study reports waivers are financed through a unique "recoupment" system that may be the only one of its kind in the nation, despite being adopted more than a decade ago in 1993. These are two extremes that may not be possible in many states whether or not they have impact fee enabling legislation.

The Alachua County case study offers a third and perhaps more realistic approach to reducing, if not eliminating, impact fees for qualified affordable housing. A modest general fund allocation is provided to offset the cost of impact fees for qualifying affordable housing, and is provided as a soft-second no-interest deferred mortgage. If the subject dwelling remains occupied by the initial buyer for five years, the deferred loan is forgiven.

Chapter 6 - Summary and Conclusions

During the next 30 years, America will need to build about 2 million homes annually to keep pace with demand. It has produced this level of new homes for much of the past decade in large part because of favorable interest rates and reasonably ample land on which to build. Still, the past five years have seen some of the highest rates of housing price increases on record – and for a lot of reasons these are the "good times" in the residential real estate market.

Challenges are looming. Rising interest rates are already cooling new construction. Rising energy prices will erode personal disposable income. Foreign competition for such building materials as steel, concrete, lumber, and even gypsum (for wallboard) reduces domestic supply and increases construction prices. The next few years in new housing construction may see a reduction in supply that when coupled with growing demand and rising prices may reduce greatly the amount of housing that is considered "affordable."

Against this backdrop is increasing demand put on local governments to provide quality public services and facilities. Congress and most statehouses are devolving responsibility for local financing of local public facilities and service to local governments. States have also acted in numerous ways to restrict facility financing options.

Impact fees have evolved as an important means of bridging the gap between facility needs and the revenue available to pay for them. Impact fees have many detractors who argue correctly on public finance and social welfare grounds that impact fees are not the best solution to solving local facility financing problems. However, for reasons related to taxpayer resistance, legal constraints and pragmatism, impact fees are often viewed as the necessary evil to solve pressing needs.

The potential effect of impact fees on housing affordability is hotly debated, with evidence seemingly supporting all views. Impact fees are likely here to stay but that does not mean they are rigidly implemented instruments of public policy. To the contrary, the impact fees of the 1970s bear little resemblance to those of the 2000s. One significant area of evolution is in calculating the fees. As noted above, much can be achieved to soften the potentially adverse effect of impact fees on housing affordability. And if that is still not enough there exist other approaches in which potentially adverse effects can be softened further if not eliminated entirely.

It is hoped that HUD's Guidebook will elevate impact fee practice to the point where every reasonable design and calculation approach is used to protect or advance housing affordability, while fairly and accurately serving underlying societal needs.

APPENDICES

Appendix A. The Relationship between Impact Fees, Planning and Exactions

This appendix puts impact fees into the context of planning and broadly reviews their relationship to exactions.

Impact Fees and Planning

Impact fees come near the tail-end of a planning and implementation process.[63] The legal logic for impact fees came initially through the exercise of local police powers provided in home rule charters, subdivision regulation authority, zoning enabling legislation, and utility statutes. Since they must be tied to regulation, they are sometimes called regulatory impact fees. They must be based on the relationship between growth and its demand on facilities needed to serve it. Also, they must not exceed the "proportionate share" of the impact of growth on facilities. This is the foundation of the "dual rational nexus test" (see section on proportionate-share impact fees).

The Georgia Department of Community Affairs, provides useful guidance on how this is established. First, long-range projections of population, housing unit demand, and employment growth are made and adopted officially. This is typically over a 10- to 20-year planning horizon.

Second, community planning goals are established that are designed to guide growth consistent with them. One or more goals may relate to housing affordability – a topic addressed elsewhere in this Guidebook.

Third, a comprehensive, long-range (typically 10- to 20-year) land use plan is prepared to help guide development to achieve planning goals.

Fourth, the projections are converted into facility demand. Suppose a community will double in population, adding 100,000 new residents over the planning horizon. Suppose also that it already has 500 acres of park land or 5 acres per 1,000 residents. Its current "level of service" is thus 5 acres per 1,000 residents. If the community is satisfied with the current level of service, it may adopt it as the official level of service standard. The next 500 acres of park are thus included generally in a long-range capital improvement element (CIE).

The Capital Improvement Element is implemented by a capital improvement program (CIP) which in Georgia is typically five to 10 years. This is the fifth step. In the case of parks, it shows the park land and acquisition improvement projects needed over that period to accommodate new development. Costs are estimated and sources of revenue available to cover those costs are identified. These revenue sources may include federal, state, and local funds, gifts from foundations, civic groups or individuals, and

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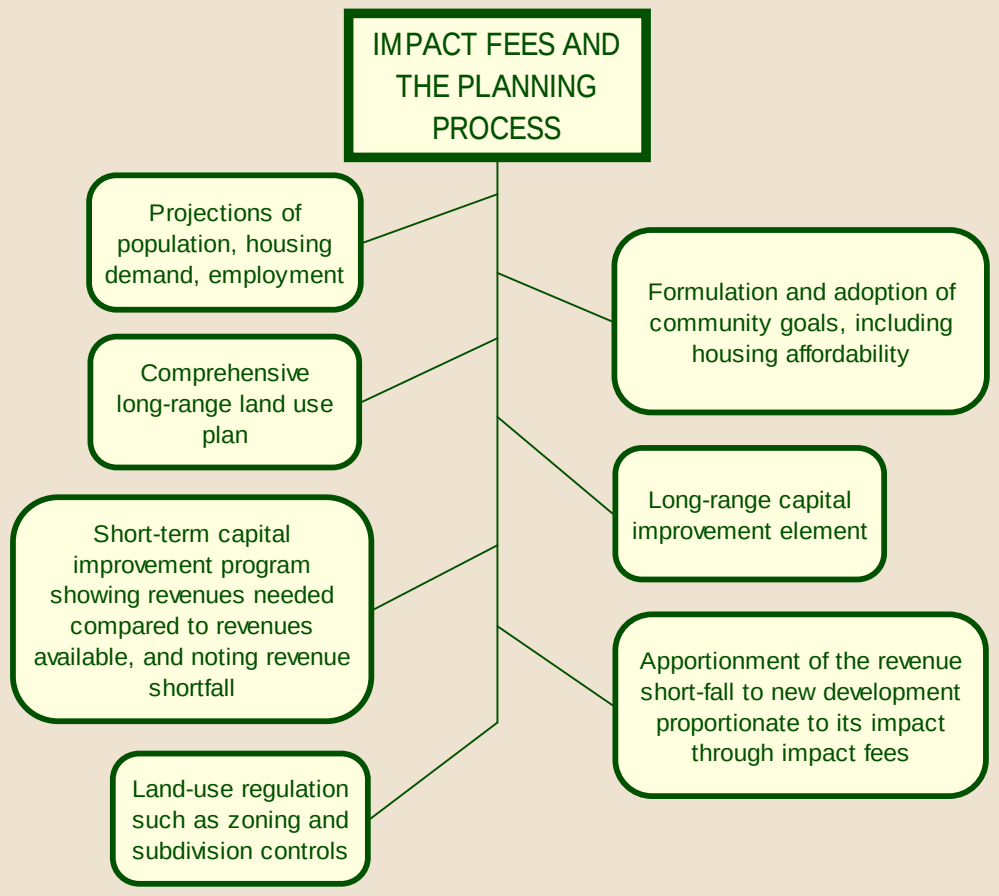
63 For a review of the planning and impact fee process, see Edward J. Kaiser and Raymond J. Burby "Exactions in Managing Growth: The Land Use Perspective" in *Private Supply of Public Services* edited by Rachelle Alterman New York University Press (1988). See also James C. Nicholas, Arthur C. Nelson, and Julian C. Juergensmeyer, *A Practitioners' Guide to Development Impact Fees*, American Planning Association (1991). For a general review of the land-use and facility planning process, see Edward Kaiser, David Godschalk, Philip Berke and F. Stuart Chapin, *Urban Land Use Planning*, fourth edition, University of Illinois Press (2006).

dedicated sources of revenue such as a dedicated property tax used to expand park inventory. If there is a short-fall in revenue needed to fully-fund the park CIP, impact fees are used to make up the gap.

Impact fees are themselves the sixth step of the planning and implementation process. Once the CIP gap has been identified a process is undertaken to apportion the shortfall in revenues to benefiting development. An impact fee schedule is developed and applied to land development permits, building permits, and/or certificates of occupancy as determined locally.

The last step in the process is designing and implementing land development regulations. Zoning and subdivision controls regulate the actual timing, shape, density and other features of development especially including residential development. Once a development has been deemed consistent with zoning and subdivision regulations – and others as locally required, it is then assessed impact fees proportionate to its impact on facilities as determined from the first five steps in the planning and implementation process.



Impact Fees and Exactions

The land-use regulatory step itself may include other forms of exactions. Suppose for example that land needs to be rezoned and then subdivided to meet a developer's objectives presumably consistent with the goals and framework of the comprehensive land-use plan. The rezoning process may identify unique or unanticipated impacts of it on the community. These may include environmental, habitat, localized facility, and other impacts. Comprehensive plans, CIE's, CIP's and impact fees cannot anticipate all potential

forms of development impacts so it is the rezoning and subdivision stage that does so. Drainage, stream setback, buffers, access improvements, utility extensions and so forth may be needed to assure the development mitigates impacts not covered by impact fees or other community-based investments shown in the CIP. Subdivision regulations also assure that on-site improvements are made at no or relatively little cost to the community – although those improvements are usually dedicated to the community for long-term maintenance after they are installed and accepted.

Rezoning and subdivision exactions are negotiated as part of the development approval process. After the rezoning (if needed) and subdivision final orders have been adopted, the developer then pays impact fees to mitigate the off-site facility impacts the final orders do not cover. The distinction here is that there is a two-stage development approval process, one that addresses unique and development-specific impacts and the other that addresses community-wide development impacts on facilities.

Two qualifications are in order. About half the states have impact fee enabling statutes but nearly all of them limit the use of impact fees to a list of facilities (see Chapter 3). Thus, if a development impacts facilities for which impact fees are not or cannot be assessed, it may be required to mitigate its impact on those facilities through additional exactions. In addition, if a development exaction includes money or improvements to mitigate off-site improvements that would otherwise have been paid through impact fees, the development receives a credit against those impact fees to avoid double-charging.

There is another set of "near impact fee" exactions that are used commonly. For example, many communities require a share of land within developments to be dedicated to the public for such uses as parks, school sites, and other facilities. Where a community park impact fee pays only for community- and regional-scale parks but not local ones, mandatory land dedications for local parks may not be subject to an impact fee credit. In states where school impact fees are not enabled or communities that choose not to have them, mandatory land dedications for school sites – or fees in-lieu based on the land value – do not result in an impact fee credit.

There is probably room for improvement in how exactions other than impact fees are implemented. In many communities, impact fees are a relatively minor part of the total package of development exactions. On-site infrastructure exactions such as for subdivision improvements are usually far larger in total cost than impact fees. Thus, from the perspective of housing affordability, understanding the nature of how other exactions are negotiated or calculated is recommended. Often, exactions provide benefits to future development that are not recovered by the exacted development. In part this is simple expediency on behalf of local government and even the developer. To craft a non-impact system to recoup the value of infrastructure for the benefit of the exacted development can be complex, and can obligate local government to more burdens. Nonetheless, this Guidebook recommends that some effort be made to do so.

For example, so-called "latecomer" assessments should be allowed more liberally than they are perhaps at present. A latecomer assessment is a public-to-private agreement that new development benefiting from improvements installed by previous developments for its benefit is assessed its proportionate share of the benefit value. The funds are collected by the local government – based on a formula akin to impact fees – and then rebated to the developer creating the benefits. Latecomer fees are allowed in many states but should be enabled by all and used more liberally in those that already have the authority. This is just another way in which to soften the effect of exactions on housing affordability.

Appendix B. Special Assessment Districts

This appendix draws heavily from local improvement district concepts and procedures in Washington State, particularly Chapters 35.43 through 35.56 RCW. The procedures reviewed here are common among local improvement districts, special assessment districts, municipal utility districts, and other mechanisms by which a project's infrastructure – including off-site infrastructure – can be financed through long-term debt retired by new development, thereby avoiding impact fees. A distinct advantage over impact fees is also that special assessment districts can finance operating expenses, rehabilitation, and renewal of infrastructure.

Once approved locally, special assessment district processes ultimately lead to the sale of bonds to investors and the retirement of those bonds via annual assessments on the property owners within a district. Goals of the special assessment district process are twofold:

- ✓ to present a bond portfolio to investors that will entice them to invest at as low a rate of return as possible; and

- ✓ to assess property owners as fairly as possible in relation to special benefits received.

Washington State statutes specify that the assessment per parcel must not exceed the special benefit of the improvement to that parcel, which is defined as the difference between the fair market value of the property before and after the local improvement project. This helps improve equity as higher value properties will be assessed higher amounts. In addition, Washington State statutes require that the assessments must be proportionate to one another.

Washington statutes provide for two specific methods of assessing benefited properties, but also allow the local government to choose any other method which meets the basic criteria. The two main assessment methods are:

- ✓ The "mathematical" method, which is relatively inexpensive to create and easy to explain to property owners. It can be composed of front-foot assessments for roads (per lineal foot of property street frontage), area (per square foot of property), zones or sectors, and units (per lot or parcel). It is possible to use several different types of mathematical assessment within one district.

- ✓ The "special benefit analysis," which furthers proportionality but is more costly to implement. It involves using a certified appraiser to calculate the value of each parcel with and without the infrastructure improvement project, calculate the difference between those two values (the special benefit), apportion project costs assignable to the special assessment district to all special benefits, and use the ratio to determine the assessment for each parcel.

One important feature of Washington's special assessment district statute is that off-site infrastructure improvements can be provided. Thus, instead of charging development within the special assessment district impact fees for off-site infrastructure, the special assessment district itself can theoretically generate the equivalent in fees through either in-kind construction or revenue produced through the sale of special assessment district bonds.

In Washington, special assessment districts have been found to be very well-suited for filling in gaps in a city's existing infrastructure such as in older plats where the full complement of today's required improvements do not exist. Special assessment districts can also provide a means for whole neighborhoods to improve their quality of life, using long-term financing at relatively lower interest rates.

Typically, because special assessment districts are governmental entities complete with their own budget, the local governing body becomes the governing body for them. Although the typical special assessment district dissolves once the bonds have been retired, expanded versions of special assessment districts can allow for the local governing body to establish a budget, provide staff or contract out as needed, make and collect assessments, and provide for operations, rehabilitation, and replacement over the long term.

Appendix C. Land Purchase Option Contract Language Accounting for Impact Fees at the Purchase of Land

The following is sample language included in the land purchase option contract provided to the authors by a developer/builder in Florida. It provides in part that the final price of land to be purchased will be reduced by the anticipated impact fees to be paid.

Section [___]. Purchase Price Adjustment. To the extent the purchaser is required to pay, either before Closing or within one (1) year after the Closing, to the City of [_____], and/or to the County of [_____], and/or to the State of [_____] or any other governmental or quasi-governmental authority or entity any development "impact" fees or other surcharges (hereinafter referred to as "Charges") associated with the development of the Property (other than fees or charges for customary permits such as zoning, site disturbance and building permits), the Purchase Price shall be reduced by the sum equal to the amount actually assessed and paid by the Purchaser for such Charges. In the event such Charges are assessed against the Purchaser or the Property prior to Closing, the Purchase Price shall be reduced by such amount, in addition to any other adjustments, credits or prorations otherwise provided in this Agreement. The Purchaser shall provide the Seller with such documentation as the Seller shall reasonably require with respect to the assessment of such Charges. In the event such Charges are assessed against the Purchaser or the Property after Closing, the Purchaser shall promptly deliver to the Seller notice of such assessment, whereupon the Seller shall have ten (10) days after the receipt of notice of such assessment within which to remit to the Purchaser a portion of the Purchase Price representing the amount of such Charges. Nothing set forth in this Section [___] shall vest, or be deemed to vest, in favor of the Seller any right to appeal, contest or otherwise challenge the validity or amount of any Charges assessed against the Purchaser or the Property, and the Seller hereby expressly covenants and agrees not to contest the validity or amount of any such Charges. The provisions of this Section [___] shall survive Closing and the delivery of all instruments of conveyance set forth herein.

Appendix D. Proportionate Share Impact Fees and Housing Affordability

Introduction and Overview

An examination of impact fees nationwide and in individual markets shows a remarkable range in the approach and methodologies by which impact fees are assessed. Given the large number of localities that have implemented impact fees and the range in purposes, this range is not surprising. What is increasingly clear is that there are considerable inequities in the ways impact fees are often assessed. Variations in housing type, unit size, density, and other factors have an effect on costs but are often not accounted for in impact fee studies. Impact fees, if not carefully constructed, can be regressive as applied and a fundamental violation of equity. The purpose of this briefing paper is to highlight the variables that can create the greatest negative impact on housing affordability and inadvertent inequities that disproportionately affect the smallest and most affordable units. The approach is to provide an overview of the concerns and a series of examples with appropriate data to validate the issues.

An article in *Units*, the trade magazine for the National Apartment Association, offers important insights into differences in impact between different types of dwellings.[64] The example is of Volusia County, Florida, which charges impact fees of $1,927 for each new dwelling unit to help cover its cost of providing fire protection, parks, and public schools to apartment residents – regardless of type. Because impact fees for residential units are based on occupancy or number of persons per unit, the County perhaps reckoned that with an average of 2.02 persons (based on the 2000 Census), the impact of the typical dwelling on these facilities amounts to $953 per person, or $1,925 per unit.

A closer look at Census figures, however, reveals that the average persons per occupied unit for single-family detached homes is 2.39, but for apartments it is 1.17, less than half. To be equitable, these impact fees should be $2,277 for single-family homes and $1,115 for apartments. Instead, single-family homes pay $350 less than they should while apartments pay $812 more. In Volusia County, impact fees are not proportionately assessed on apartments considering average apartment occupancy rates. Unfortunately, this is not an isolated example.

This briefing paper begins with a review of equity principles, explores different conceptual applications, reviews actual applications in selected communities, and offers insights to advance professional impact fee practice.

Equity Basics

Impact fees are one-time charges assessed on new development to help pay for the new or expanded infrastructure it needs. After a generation of rapidly growing national acceptance, the impact fee debate continues. That debate has evolved, however, from *whether* impact fees should be assessed at all to *how* they are assessed.

Impact fees elicit concerns about equity. Intergenerational equity may be of concern because impact fees assessed on new homes may adversely affect the ability of the children of current residents of the

[64] Arthur C. Nelson, National Apartment Association, *Units,* (2004).

community to buy homes where they grew up. Representational equity may be of concern because to the extent that impact fees are assessed on new homes bought by new residents of the community, these new residents had no say in the adoption of the policy. Equity in endowments may be of concern to the extent that impact fees are considered a form of "initiation" fee into a community much like country clubs charge high initiation fees affordable only to the affluent. While these concepts of equity are important, the focus of this briefing paper is on proportionate equity – that is, the extent to which the fee reflects the actual impact different housing units have on community facilities. The legal principle of proportionality is reviewed in another briefing paper so the focus here is on applying the principle through calculations.

A critical aspect of proportionality is the extent to which impact fees are based on the *impact* of new development on facilities. Consider new residential development. In the Volusia County example above, the county merely assumed that each residential unit had the same impact on facilities regardless of size, type, density, location, or other factors. Hence, the impact fee for a large single-family detached home is the same as for a small efficiency apartment despite the fact that census figures clearly show substantial differences in occupancy rates. The following discussion reviews differences in proportionate impacts based on dwelling unit type, size, density, location, and configuration.

Dwelling Unit Type: The Volusia County example illustrates that different residential unit types have proportionately different levels of occupancy that in turn impact facilities differently. The example of school impact fees, which tend to be among the highest of all impact fees, is reviewed here. Based on data from the 2000 Census, the average student generation rate in Volusia County is 0.41 per single-family home but only 0.13 for apartments with an overall county average of 0.31 students.[65] In other words, charging the same school impact fees for apartments as for single-family detached homes means that apartments are charged proportionately about 2.5 times more than their average impact while single-family detached homes are charged about a quarter less. The effect is that apartments are subsidizing detached homes.

Size: Size also matters. Remember that impact fees are one-time charges on new development to help pay for the public facilities needed to serve it. Conceptually, if new single family detached homes built in the community averages 2.5 persons per unit, the construction of an average new single family detached home adds 2.5 people to the community. If the community wishes to maintain the current "level of service" that is, say, 5 acres of improved park land per 1,000 residents, this would be 0.005 acres per new resident which, multiplied by 2.5 persons per unit, means the new home will require 0.0125 acres of new park land to maintain the desired level of service. If the cost of an improved acre of park land is $100,000, the impact fee per unit would be $500 per new resident or $1,250 per new home. In some communities, this is precisely how impact fees are calculated and assessed for all new homes constructed regardless of size. Yet, census data show that the smaller the dwelling unit (regardless of type) the fewer the number of people who live in it on average. Detached homes of 1,000 square feet for example average about 2.19 persons per unit while homes of 3,500 square feet average about 3.02 persons (see Table 4-3). Thus, to be proportionate to differences in impact, impact fees should really range from $1,093 for the smaller home to $1,510 for the larger home.

[65] Figures from 2000 US Census 5% Public Use Micro Sample (PUMS) data; figures shown are public school students attending pre-school through 12th grade per total unit—students per occupied unit are 0.44 for single-family detached and 0.19 for apartments with 5 or more units and 0.35 for all units.

This leads to a related issue of proportionality – vertical equity. Conceptually, higher-income households are better able to afford things than lower-income households. Although impact fees are not based on income, there is an important albeit subtle relationship between house size, income, and the burden impact fees have on households based on house value and income. This distinction is raised here because one of the concerns about impact fees is their effect on housing affordability related to household income. A fixed fee will thus be higher proportionately on the smaller home with a lower value (and on average fewer people) than on the larger home with a higher value (and on average more people). Table 1 shows the relationship between house value and house size. Clearly, as house size increases so does its value.

Table 1. Relationship Between House Value and House Size (in Sq. Ft.)

House Value	Size	House Value	Size
Less than $10,000	900	$80,000 to $99,999	1,614
$10,000 to $19,999	1,044	$100,000 to $119,999	1,716
$20,000 to $29,999	1,188	$120,000 to $149,999	1,834
$30,000 to $39,999	1,314	$150,000 to $199,999	1,999
$40,000 to $49,999	1,378	$200,000 to $249,999	2,183
$50,000 to $59,999	1,451	$250,000 to $299,999	2,332
$60,000 to $69,999	1,478	$300,000+	2,500+
$70,000 to $79,999	1,513		

Source: Adapted from *American Housing Survey 2001.*

Table 2 goes one step further by showing the relationship between house size, household income, persons per unit, and lot size. Clearly, as house size increases so does household income, persons per unit, and lot size. The implications of this table on housing affordability should be clear. If calibrating impact fees to be sensitive to affordable housing concerns is desired, scaling them based on house size is necessary because as house size increases so do average occupancy levels and hence impact on facilities. Unfortunately, these simple relationships are usually not considered in impact fee methodologies with the result that impact fees are normally regressive as applied – that is, they fall disproportionately on smaller homes with lower values and fewer occupants with lower incomes than on larger homes. This is a fundamental violation of equity.

Table 2. Relationship Between House Size, Household Income, Persons Per Unit, and Lot Size

House Size	Income	Persons	Lot Size
Less than 500 square feet	$21,982	2.21	0.22
500 to 999 square feet	$27,370	2.27	0.25
1,000 to 1,499 square feet	$37,187	2.51	0.33
1,500 to 1,999 square feet	$52,134	2.69	0.37
2,000 to 2,499 square feet	$63,649	2.89	0.43
2,500+ square feet	$76,526	3.02	0.52

Source: Adapted from *American Housing Survey 2001.*

To address housing affordability concerns, DeKalb County, Georgia, is considering one of the nation's first comprehensive proportionate share impact fee, methodologies that recognizes differences in impact based on house size. Its methodology for parks and recreation, libraries, public safety facilities, and transportation results in impact fees totaling $1.66 per square foot. Not only was the county able to generate data and

craft a methodology that converts facility impacts for a wide range of facilities – including transportation which heretofore has rarely been done – but it has also done so in a manner that is consistent with the logical extension of proportionality. This is a breakthrough for national impact fee practice. As currently under consideration, Table 3 shows that for homes of 900 square feet (about the median size of a Habitat for Humanity house in metropolitan Atlanta) which average about 1.9 persons per home, the impact fee is $1,330 or 1.7% of the house value and 3.4% of the average annual income of the household. In contrast, for homes of 3,500 square feet that average 3.3 persons per unit, impact fees are $5,818 or 2.2% of the house value and 6.3% of the average household income.

Table 3. DeKalb County, Georgia, Progressive Impact Fee System

Size	Value	Persons	Fee	Percent of Home Value	Income	Percent of Income
900	$79,819	1.9	$1,330	1.7%	$39,127	3.4%
1,300	$115,295	2.2	$2,161	1.9%	$51,652	4.2%
1,800	$143,142	2.3	$2,992	2.1%	$63,346	4.7%
2,300	$189,197	2.7	$3,990	2.1%	$81,362	4.9%
3,500	$269,573	3.3	$5,818	2.2%	$92,143	6.3%

Source: Calculated from the *American Housing Survey* 1996 for Metropolitan Atlanta, GA, interpolated and adjusted to 2004 values.

It is important to note that the "progressive" nature of impact fee assessments contemplated by DeKalb is coincidental – the impact fees are based proportionately on different levels of impact generated by housing units of different sizes, not on incomes or values.

Density: It goes almost without saying that apartments are of higher density than single-family homes and for this reason there is the normal perception that they contribute more to highway congestion than lower-density, single-family detached homes. Yet, as will be seen below, higher-density areas result in fewer automobile trips at shorter distances per trip. Spreading out development requiring more and longer trips may exacerbate congestion. This is an important consideration because while impact fee programs give a break to apartments based on data from the Institute of Transportation Engineers (ITE) *Trip Generation* (now in its 7th edition) that show fewer trips per apartment unit than per single-family detached unit (including Volusia County), they do not consider lower trip distances between apartment and single-family detached units based on other federal travel data. Thus, while Volusia County's road impact fees for apartments are 30 percent less than for single-family homes based only on trips, there is no further adjustment for vehicle miles traveled (VMT). Why is this important? The higher the VMT the more road capacity is required to accommodate the traffic impacts. Volusia County's road impact fees may thus over-charge for residential development in higher-density areas for this reason.

Location: Location also matters. Thus far only one impact fee program has been identified that reduces impact fees based on proximity to rail transit stations and none with respect to bus lines. Atlanta recognizes the reduced impact on roads because of close proximity to public rail transit. The city reduces impact fees by 50 percent for all multifamily communities within one-quarter mile of rail transit stations and 25 percent for developments between one-quarter and one-half miles. This was instituted in 1993, but it is possible that Atlanta remains the lone pioneer. DeKalb County, Georgia, is considering reductions in road impact fees for new development located along bus corridors; the reductions may range from 10 percent to 30 percent.

Configuration: Mixed-use developments also reduce road impacts. For example, some studies of mixed-use projects show up to a 40 percent reduction in road impacts. When living-working-shopping-services are all nearby, fewer car trips are needed and certainly the distance traveled is reduced. New urbanism, new towns, new communities, planned unit developments and the like probably all reduce their impact on facilities. Numerous examples exist but have not been codified into impact fee studies.

Impact Variations by Housing Type

This section presents information showing how impacts between different residential types and sizes vary in terms of type, size, location, density, and configuration. To help with this assessment, four housing prototypes are devised and compared with an average dwelling as shown in Table 4. Figures for house size (in heated/cooled square feet), lot size (or its equivalent in terms of attached units), density, occupants, and public school students are roughly comparable to national averages for each prototype although there will be regional variations. Note that we highlight "Average Dwelling" using figures that are intended to be reasonably typical of the average of all dwelling units.

Table 4. Five Housing Prototypes

Unit Type	Living Area in Square Feet	Lot Size in Square Feet	Acres Per Unit	Units Per Acre	Occupants Per Unit	Public School Students Per Unit
Detached Large Lot	3,000	20,000	0.500	2.0	2.75	0.65
Average Dwelling	***2,000***	***10,000***	***0.250***	***4.0***	***2.50***	***0.50***
Detached Cluster	1,500	5,000	0.125	8.0	2.25	0.25
Townhouse/Low-Rise Apartment	1,200	3,000	0.075	13.3	2.15	0.22
Apartment/Condo	900	1,000	0.025	40.0	2.00	0.20

Source: Adapted by authors from the *American Housing Survey 2001.*

Because many local governments charge impact fees for all residential units based on a single average, a comparison can be made between impact fees assessed for the average dwelling in relation to larger and smaller units, and attached and detached units. For instance, Table 5 shows results from a recent national survey, indicating that more than one-third of jurisdictions assessing impact fees charge a flat fee for all units without respect to type, size, or other characteristics for at least one facility. The survey also showed that an average of 17 percent of all jurisdictions surveyed have a flat rate for all residential development and 34 percent do so for at least one facility.

Table 5. Distribution of Jurisdictions Charging Flat Fee For Residential Development

Facility	Percent Charging One Fee
Roads	5.8 %
Water	11.4%
Wastewater	11.6%
Stormwater	8.5%
Parks	22.6%
Library	20.0%
Fire	21.6%
Police	29.2%
General Government	33.3%

Schools	9.3%
Average	17.3%
Any Facility	33.9%

Source: Duncan Associates, national survey, February 2005.

Table 6 shows the facilities for which impact fees are considered along with level of service standards and net impact costs.[66] The impact costs per unit of impact are rounded averages based on national surveys.

Table 6. Impact Fee-Financed Facilities, Net Impact Cost, Level of Service

Facility	*Impact Unit*	*Net Impact Cost Per Impact Unit*	*Level of Service*
Libraries	Persons	$100.00	2 books per capita @ $50 net cost per book including land and capital costs.
Parks	Persons	$250.00	5 acres of park per 1,000 residents @ $50,000 net cost per acre including land and capital costs.
Fire/EMS*	Dwelling	$60.00	$1,000,000 net cost to serve the average density including land and capital costs.
Police	Dwelling	$30.00	$500,000 net cost to serve the average density including land and capital costs.
Schools	Student	$3,000.00	Net cost per student station including land and capital costs.
Roads	Miles	$50.00	Net cost per average daily trip mile and 20 net daily miles per person including land and capital costs.
Drainage	Sq. Feet	$0.75	Net cost per impervious square foot including collection and storage network.
Water	Gallon	$5.00	Net cost per gallon of treatment and storage but not network costs; 100 gallons per person, average daily demand during peak month.
		$250,000	Net cost per mile of water main.
Wastewater	Gallon	$5.00	Net cost per gallon of treatment but not network costs; 80 gallons per person, average daily demand during peak month.
		$250,000	Net cost per mile of wastewater main.

Source: Adapted by authors from national survey of impact fee use by Duncan & Associates, February 2005. Net costs mean those after accounting for other revenues available to finance the same facilities for which impact fees are to be assessed. Fire/EMS and Police assumes 5-minute response time in an area serving a uniform density of 0.25 acres per unit, total of 17,920 units.

These costs are in line with typical communities based on level of service standards observed nationally.[67] Costs can vary based on level of service policies, land, local construction, and labor conditions.[68] Considered separately now are how costs vary based on type and size of unit, density, location, and configuration.

Variation Based on House Size and Type

[66] "Net" impact costs mean capital facility impact costs per unit of development less new tax, fee, and other revenues generated by new development that help finance the same facilities, such as that portion of a dedicated school facility property tax that is used to pay debt service for new schools.

[67] See the briefing paper on extent and variation of impact fees.

[68] For water and wastewater, we assume 100 gallons demand per capita per day for the average annual day and 115 gpcpd for peak month average daily demand. For wastewater we assume 90 gpcpd for both.

Table 7 shows the variation in impact fees between the four prototypes based only on house size and type of unit. Communities that charge impact fees based on only the average unit will typically under-charge larger units on larger lots and over-charge smaller, often detached units on smaller lots or at higher density. In this example, the net impact cost to serve a large home on a large lot is $13,470 but the impact fees would be $10,350 or 23 percent less when based on average house size. On the other hand, smaller homes, townhouses, and apartments at higher densities cost less than the average yet would pay impact fees ranging from $1,710 to $3,945 or 20 percent to 62 percent more than their net impact cost.[69]

Table 7. Variation in Impact Fees Based on House Size and Type

Facility	***Average Dwelling***	***Detached Large Lot***	***Detached Cluster***	***Townhouse/ Low-Rise Apartment***	***Apartment/ Condominium***
Impact Measure	***Development Impacts By Unit Type***				
Persons Per Unit	***2.5***	3.00	2.25	2.15	2.00
Students Per Unit	***0.5***	0.650	0.250	0.220	0.200
1-Way Miles	***50***	60	45	43	40
Impervious Land Per Unit	***4,000***	6,000	3,500	2,250	1,500
Gallons Water	***250***	300	225	215	200
Gallons Wastewater	***200***	240	180	172	160
Facility	***Net Facility Impact Costs By Unit Type***				
Libraries	***$250***	$300	$225	$215	$200
Parks	***$625***	$750	$563	$538	$500
Fire	***$150***	$180	$135	$129	$120
Police	***$75***	$90	$68	$65	$60
Schools	***$1,500***	$1,950	$750	$660	$600
Roads	***$2,500***	$3,000	$2,250	$2,150	$2,000
Drainage	***$3,000***	$4,500	$2,625	$1,688	$1,125
Water	***$1,250***	$1,500	$1,125	$1,075	$1,000
Wastewater	***$1,000***	$1,200	$900	$860	$800
Total Net Impact Cost	***$10,350***	$13,470	$8,640	$7,379	$6,405
Over (Under) Charge Amount		***($3,120)***	***$1,710***	***$2,972***	***$3,945***
Over (Under) Charge Percent		***-23.2%***	***19.8%***	***40.3%***	***61.6%***

Source: Calculations by authors.

This example, based on reasonable estimates of national averages, shows that charging impact fees on the basis of only the average size of the dwelling unit results in larger homes at lower densities being subsidized by smaller, usually more affordable homes at higher density.

Impact Variation Based on Density

For some facilities, density probably is not a determinative factor in calculating impact fees. Libraries, government administration, and schools come to mind (aside from school bus costs that will vary by density). Other facilities range from being mildly to greatly influenced by density such as utilities, transportation, and public safety facilities – principally fire and emergency medical response.

[69] Water and wastewater charges based on average daily demand.

Numerous studies have shown that density is a substantial influencing factor in extending wastewater and stormwater systems. Burchell's synthesis of literature suggests that higher-density development (more than 6 units per acre) is about 20% to 30% less costly to serve with wastewater and stormwater services than lower density.[70] Because the cost effects relating to stormwater facilities are incorporated in the figures above, they are not considered here.

Density of the geographic area within which development occurs (as opposed to density of the development itself – see below for "configuration" of individual development projects) has a strong influence on mode choice to destinations and distance to destinations. Higher-density areas may lend themselves to more walking and bicycling to some destinations than lower-density ones, and higher-density areas may have public transit options that lower-density ones do not. Also, higher-density areas may make the trips between destinations shorter. All this suggests that from the perspective of road impact fees – usually the highest of all impact fees assessed – density matters.

The effect of density on public safety, water and wastewater, and road facility impact is considered here. Public safety facilities need to be located to respond to emergencies usually within 5 to 10 minutes after a call. The more densely developed an area is usually the lower the capital cost (land, buildings, and equipment) per home. For a given number of homes, the size and associated cost of water and wastewater networks decline per home as density increases. Likewise, higher density is usually associated with fewer and shorter road trips. To begin this analysis, five density ranges are created that for convenience are based on the availability of travel data by density range, with an assumed average density within each range.

Table 8. Density-Range Categories and Average Density by Category

Residential Units Per Square Mile, Range	***Average Residential Units Per Square Mile***
26 – 700	500
701 - 2,000	1,200
2,001 - 4,000	3,000
4,001 - 6,000	5,000
>6,000	7,000

Source: Calculation by authors. Density ranges based on categories of residential unit development at the level of census tracts used by the National Household Travel Survey, 2001.

Consider first density and the cost of public safety facilities. Assume a 5-minute response time as the level of service for fire/EMS and police facilities. In a low-density area, one fire station may be able to serve 10 square miles of development around it but at higher densities perhaps only 4 square miles may be served. Table 9 illustrates the differences in costs associated with different densities per person. Note that costs per person are reduced by about half when density increases from 500 to 1,200 units per square mile, and by another half when density increases to 3,000 units per square mile.

[70] Robert Burchell, et al., *The Costs of Sprawl Revisited*, National Academy of Sciences (2000).

Table 9. Density-Based Public Safety Facility Net Impact Costs

Residential Units Per Square Mile, Range	*Residential Units Per Square Mile, Average*	*Residents at Constant Occupancy*	*Square Miles Served by Station and Precinct*	*Persons Served Per Station and Precinct*	*Fire/EMS Cost Per Person*	*Police Cost Per Person*	*Total Cost Per Person*
26 - 700	500	1,250	10	12,500	$80	$40	$120
701 - 2,000	1,200	3,000	8	24,000	$42	$21	$63
2,001 - 4,000	3,000	7,500	6	45,000	$22	$11	$33
4,001 - 6,000	5,000	12,500	5	62,500	$16	$8	$24
>6,000	7,000	17,500	4	70,000	$14	$7	$21

Source: Calculation by authors. Cost per person based on units per square mile times average unit density from Table 4 which is divided into cost per fire/EMS station and police precinct in Table 6.

It is observed that impact fees are typically assessed throughout a jurisdiction without respect to variations in density. The argument is normally made that because public safety facilities serve the entire jurisdiction and each facility backs others, there would be no variation by service area since there would be just one. However, if planning shows clearly different densities between sub-areas of the jurisdiction, density-based impact fees may be considered reflecting the differences in cost illustrated in Table 9.

Consider now variations in water and wastewater capital costs based on density. Two separate issues are considered. First, as density decreases the cost of providing the network of mains and other improvements outside subdivisions increases. Second, the costs of central water and wastewater facilities are roughly constant for average daily personal use but for water vary by time of year reflecting principally lawn irrigation and other outdoor water use.

For the network cost, consider a very simplistic set of assumptions: a) the same size of water and wastewater main can serve the same number of people whether they are concentrated in one square mile of development or 10 (that is, as land area increases density decreases proportionately); b) the main traverses through the center of a square mile and residential developments tap onto it and internalize costs of extending the network within them (that is, each connecting development serves an area a half mile wide); c) the terrain is unproblematic; and d) the cost to install a mile of water and wastewater mains is $250,000 each or $500,000 together. These simplistic assumptions allow us to calculate the variation in water and wastewater network costs by density which is done in Table 10.

Table 10. Water and Wastewater Network Costs Per Unit By Density

Residential Units Per Square Mile, Range	***Residential Units Per Square Mile, Average***	***Cost Per Unit***
26 – 700	500	$1,000
701 - 2,000	1,200	$417
2,001 - 4,000	3,000	$167
4,001 - 6,000	5,000	$100
>6,000	7,000	$71

Source: Calculated by authors. Network costs based on $250,000 per mile for water and wastewater mains from Table 6.

Central facility demand for normal daily use is roughly the same per person but variation in water demand in certain months occurs as density declines reflecting outdoor use such as for irrigation, swimming pools, and washing cars. For this part of the analysis, we keep persons per unit constant to assure consistent assessment of how costs vary only by density. Table 11 calculates the cost of central treatment demand for both normal average daily use and peak seasonal use.

Table 11. Central Water and Wastewater Treatment Costs Per Unit By Density with Constant Occupancy

	Units Per Square Mile				
Residential Units Per Square Mile, Range	***26 - 700***	***701 - 2,000***	***2,001 - 4,000***	***4,001 - 6,000***	***>6,000***
Units Per Acre	2.0	4.0	8.0	13.3	40.0
Persons Per Unit, Constant Occupancy	2.50	2.50	2.50	2.50	2.50
Average Daily Water Demand, Gallons	250	250	250	250	250
Average Daily Water Cost	$1,250	$1,250	$1,250	$1,250	$1,250
Average Daily Wastewater Demand, Gallons	200	200	200	200	200
Average Daily Wastewater Cost	$1,000	$1,000	$1,000	$1,000	$1,000
Equivalent Land Area, Square Feet	20,000	10,000	5,000	3,000	1,000
Additional Average Daily Water Demand During Peak, Gallons	4,000	2,000	800	500	300
Additional Peak Season Average Daily Demand, Gallons	$20,000	$10,000	$4,000	$2,500	$1,500
Total Cost Per Unit	$22,250	$12,250	$6,250	$4,750	$3,750

Source: Calculated by authors.

Table 12 combines information from Tables 10 and 11 to illustrate water and wastewater fees by density and assuming average household sizes by density as provided in Table 11. The variation is substantial. Costs to serve units at the lowest density (corresponding roughly to large-lot homes) are nearly twice those of the next density category (corresponding roughly to the average-size lots) and nearly four times the

middle density category (corresponding roughly to small and cluster lots). The difference is mostly associated with peak seasonal use which can be reduced through pricing or policy or both. In the absence of such policies, varying central treatment costs by density would appear to improve proportionality in impact fee assessments.

Table 12. Total Water and Wastewater Costs Per Unit By Density With Constant Occupancy

Residential Units Per Square Mile, Range	***Network Costs Per Unit***	***Central Treatment Costs Per Unit, Constant Occupancy***	***Total Costs***	***Total Costs Per Person***
26 - 700	$1,000	$22,250	$23,250	$9,300
701 - 2,000	$417	$12,250	$12,667	$5,067
2,001 - 4,000	$167	$6,250	$6,417	$2,567
4,001 - 6,000	$100	$4,750	$4,850	$1,940
>6,000	$71	$3,750	$3,821	$1,529

Source: Calculated by authors.

This section concludes with consideration of variation in road costs based on density. The principal concern here is whether road demand varies by density. Generally, higher density results in fewer trips and shorter distances traveled between land uses. Table 13 reports average vehicle miles traveled per driver for all residential units and by unit type for 2001 based on density at the census tract level.

Table 13. Average Daily Vehicle Miles Traveled Per Household Person by Unit Type, 2001

Units Per Square Mile	*Miles Per Person*	*Percent Change Between Categories*
151 - 700	29.5	
701 - 2,000	27.1	8.4%
2,001 – 4,000	24.0	11.3%
4,001 – 6,000	20.3	15.6%
6,000+	14.2	30.0%

Source: Nationwide Household Transportation Study 2001, calculated by authors based on annual average vehicle miles per drive times drivers per household person by density category divided by 365.

Vehicle miles traveled per person fall with respect to residential density. Between the lowest density (about one unit per four acres) and the highest density (about 10 units per acre – roughly townhouse density), vehicle miles traveled per driver fall by about half. Indeed, the rate of change in reduction in miles traveled per person increases among the two highest density categories, as noted on the table.

It is also suspected that as density increases so does the opportunity to use transit, bicycle, or walk to work. Table 14 shows mode choice for all trips with respect to density (measured at the level of census tracts). Expected patterns emerge. Although the private motorized vehicle mode (car, van, sport utility vehicle, pick-up truck, large truck) dominates in all categories, it falls considerably between the 4,000-6,000 and >6,000 unit-per-square-mile categories (essentially cluster home to townhouse density). Trips via bus nearly double between the same density categories, while rail trips increase nearly six-fold. Walking to work increases at about the same rate between the three most dense categories.

Table 14. Trip Distribution by Density, 2001

Housing Units Per Square Mile	Private Motor Vehicle	Bus	Rail	Bicycle	Walk	All Other Modes
26 – 750	97.0%	0.5%	0.3%	0.1%	1.7%	0.5%
751 - 2,000	95.4%	1.1%	1.2%	0.3%	1.4%	0.6%
2,001 - 4,000	92.4%	2.8%	1.6%	0.4%	2.4%	0.4%
4,001 - 6,000	82.4%	7.4%	3.2%	1.4%	5.0%	0.7%
6,000+	56.6%	13.7%	18.7%	1.4%	8.6%	0.9%
All	90.9%	2.90	2.5%	0.5%	2.8%	0.5%

Source: Nationwide Household Transportation Study 2001, calculated by authors based on mode journey to work by workers using only complete responses and grouping detailed mode categories into the ones reported here.

All these considerations are combined for road impact fee purposes in Table 15. Average daily vehicle miles traveled per person for each density category are reduced by 50% to assign trips half to the origin (the home) and half to the destination to avoid double counting. The adjusted figure is multiplied by the cost per mile of a one-way trip. Although there is little difference between the lowest and second lowest density categories, substantial differences are seen in others. The greatest rate of reduction in miles traveled is between the density categories of 751-2,000 and 2,001-4,000 units per square mile. At the higher density, regularly scheduled bus and light rail service becomes feasible, and land uses are sufficiently close that more non-vehicle trips are needed.

Table 15. Road Impact Fees Per Person by Density Category

Housing Units Per Square Mile	***Average Daily Vehicle Miles Per Person***	***One-Way Miles Per Person***	***Net Impact Cost @ $50 Per Mile***	***Percent Change from Lower Density***
26 - 750	26.3	13.1	$656	
751 - 2,000	24.9	12.4	$622	-5.3%
2,001 - 4,000	21.7	10.9	$543	-12.7%
4,001 - 6,000	19.9	9.9	$497	-8.5%
6,000+	18.6	9.3	$464	-6.5%

Source: Nationwide Household Transportation Study 2001, calculated by authors. Average daily vehicle miles per person calculated as annual person miles traveled divided by total household members divided by average vehicle occupancy. Cost per mile from Table 6.

Clearly, density matters, especially for facilities such as wastewater, public safety, and highways. Table 16 summarizes impact fees for all facilities except drainage. Density-related facilities include public safety, water and wastewater, and roads while non-density related facilities include libraries, park and recreation, and schools. (Of course these facilities are affected by density but not as much as others.) Seen here is that impact fees per person vary remarkably between the different density categories. Fees per person for the lowest density exceed $13,000 while for the middle-density category, where transit service becomes feasible, fees per person are less than half.

Table 16. Non-Density Related + Density-Related Net Impact Costs Per Person

	Residential Units Per Square Mile, Range				
Residential Units Per Square Mile, Range	***26 - 700***	***701 – 2,000***	***2,001 – 4,000***	***4,001 - 6,000***	***>6,000***
Public Safety Cost Per Person	$120	$63	$33	$24	$21
Water and Wastewater Cost Per Person	$9,300	$5,067	$2,567	$1,940	$1,529
Road Cost Per Person	$656	$622	$543	$497	$464
Libraries	$100	$100	$100	$100	$100
Parks and Recreation	$250	$250	$250	$250	$250
Schools	$3,000	$3,000	$3,000	$3,000	$3,000
Total Cost Per Person	$13,426	$9,101	$6,493	$5,811	$5,364
Percent Change from Lower Density		-32.2%	-28.7%	-10.5%	-7.7%

Source: Calculated by authors. Stormwater is excluded for brevity.

Table 17 applies these per-person figures to the residential prototypes by density category. (Stormwater is excluded to highlight differences without further complication) Some information presented is probably not realistic such as detached large lots in the highest density category and 40-unit per acre apartments in the lowest density category. However, it is reasonable to compare impact fee levels between the three lowest-density categories since they can apply to county-level situations where all five residential types and all three density categories may be present. Also, to be consistent between residential types, we will only consider the effect of density on each of them. For each residential type, fees are in the order of one-third less in the category of 751 to 2,000 units per mile than in the lowest density category, and they are about half in the category of 2,001 to 4,000 units per square mile. Interestingly, the rate of change beyond about 4,000 units per square mile is not as pronounced. Clearly, to assure proportionality and therefore equity in impact fee assessments, house type, size, and density need to be considered.

Table 17. Impact Fees By Unit Type by Density

	Residential Units Per Square Mile, Range				
Unit Type	***26 - 700***	***751 - 2,000***	***2,001 - 4,000***	***4,001 – 6,000***	***>6,000***
Detached Large Lot	$40,279	$27,302	$19,479	$17,432	$16,093
Average Dwelling	***$33,566***	***$22,752***	***$16,232***	***$14,526***	***$13,411***
Detached Cluster	$30,210	$20,477	$14,609	$13,074	$12,070
Townhouse/Low-Rise Apartment	$28,867	$19,567	$13,960	$12,493	$11,533
Apartment/Condominium	$26,853	$18,202	$12,986	$11,621	$10,728

Source: Calculated by authors. Stormwater is excluded for brevity.

Variation in Location

Location is considered in two respects: specific area and distance from service. Specific area means that in some portions of a jurisdiction it is simply more expensive to install infrastructure than in others; for example, a mesa composed of rock versus a talus slope within the same jurisdiction – as seen in Albuquerque, New Mexico. These are idiosyncratic and need to be addressed on a case-by-case basis. Needless to say, impact fees that blend high-cost and low-cost areas together into an average cost applied everywhere would have the effect of charging low-cost areas more and high-cost areas less than their proportionate share of many facility impacts.

Distance from service means that the farther away development is from a specific service, the less likely the service will be used or accessible in a timely manner. Two types of facilities are especially sensitive to this: public safety and public transit. Public safety facilities, such as fire, police, and emergency medical, are often designed to provide service within five minutes of a call. New development that results in service beyond this threshold may require new facilities. However, if no new facilities are provided, there is little penalty other than delay – except for fire service. Fire insurance rates are based in part on response times and if new development extends average response times for the jurisdiction beyond certain thresholds, the fire insurance rating for all property goes up – meaning that fire insurance premiums increase. In terms of impact fees, if more fire stations are needed to serve the same population but across a larger area, fire impact fees will need to be higher. If fees are the same across the jurisdiction – as most are – development in higher-density areas will be paying more than its proportionate share and development in lower-density areas will be paying less. Clearly, density could be a factor in calculating impact fees for fire protection and perhaps other public safety facilities. This is an area worthy of future research.

Accessibility to public transit has a measurable impact on road demand. For example, in Arlington County, Virginia, 47 percent of the workforce commutes via transit and 73 percent of them walk to transit stations – yet its density is only half that of Los Angeles (where transit ridership is less than that of Arlington's). National studies have shown that dwelling units within one-half mile of transit stations have about 60 percent fewer automobiles than their metropolitan area averages. Finally, numerous studies have shown that rail transit ridership ranges from 25 to 50 percent of workers living within ¼ mile of stations and half that between ¼ and ½ mile, and others indicate that use of bus transit ranges from 15 to 30% for workers living within ¼ mile of the bus line and about half that between ¼ and ½ mile. The reductions applicable to a given situation will need to be estimated based on local conditions; this need not be difficult, however, as data allowing for such analysis are provided in the Census Transportation Planning Package for all metropolitan areas.

One example application of this type of analysis is a road impact fee recently adopted by the City of Tucson, Arizona, which reduced residential road impact fees in the downtown core area of the city. The 2000 Census data on average travel time to work for workers over sixteen years of age using other modes than public transportation is summarized in Table 18. The data revealed a modest difference between the Central Core area (19.1 minutes) and the rest of the city (21.6 minutes). Additional analysis revealed little differences between other sections of the city. Not only do Central Core residents travel somewhat quicker (and presumably shorter) routes to work when they use automobiles and other private forms of transportation, they are also more likely to use alternative modes of travel. Only 78.8 percent of Central Core residents take private motor vehicles to work compared to 90.8 percent of other city residents. Taking into account both the reduced tendency to use private motor vehicles and shorter trip lengths, residential

development in the Central Core can be expected to generate only about 77 percent of the vehicular travel demand generated by residential development in other parts of the city, as shown in Table 18.

Table 18. Road Reduction Factor for Core Residential Development

	Central Core	Rest of City	Ratio
Percent Driving Private Motor Vehicle to Work	78.8%	90.8%	0.87
Travel Time, Non-Public Transportation (minutes)	19.1	21.6	0.88
Reduction in Road Impact for Residential in Central Core			0.77

Source: Duncan Associates, *Road and Park Impact Fee Study for the City of Tucson*, June 2004, based on 2000 U.S. Census, SF-3 sample data (1 in 6 sample) of workers 16 years or older; Central Core area approximated by Pima County census tracts 1-19, 22, 24-25.01, 26-29.01, 38.01, 45.04-45.05.

Also, consider the potential effect of transit availability on road demand. Using data from the 2001 National Household Transportation Survey, we constructed comparisons shown in Table 19. Metropolitan areas over one million residents with a transit system that included rail have decidedly lower rates of private vehicle use than those without – about 20 percent less overall.

Table 19. Private Vehicle Trips in Metropolitan Areas 1+ Million Population With and Without Transit Systems That Include Rail

	Units Per Square Mile					
With Rail Transit	***26 - 700***	***701 - 2,000***	***2,001 - 4,000***	***4,001 - 6,000***	***>6,000***	***All***
Private Vehicle	95.6%	91.8%	87.0%	75.0%	49.4%	75.3%
Transit	2.3%	6.8%	9.0%	18.1%	40.1%	19.0%
Bicycle	0.1%	0.1%	0.4%	1.5%	0.9%	0.6%
Walk	2.1%	1.1%	3.1%	5.3%	8.7%	4.7%
Other	0.0%	0.2%	0.4%	0.1%	0.9%	0.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Without Rail Transit						
Private Vehicle	96.8%	95.9%	93.1%	87.2%	75.9%	92.8%
Transit	1.4%	2.2%	4.4%	7.8%	13.6%	4.3%
Bicycle	0.1%	0.3%	0.3%	0.9%	2.7%	0.4%
Walk	1.5%	1.2%	2.0%	3.9%	7.6%	2.2%
Other	0.2%	0.5%	0.2%	0.2%	0.3%	0.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Nationwide Household Transportation Study 2001, calculated by authors.

Variation in Configuration

Urban form and design heavily impact transportation demand. Mixed uses and, better still, master-planned mixed-use developments, can reduce automobile use substantially. For example, in a typical single-use office/business park, walking trips may account for 3 to 8 percent of all mid-day trips. That figure rises to 20 to 30 percent when other uses are accessible such as shopping, and personal and financial services.

Even greater gains are made when new community design combines compact development (even in the suburbs), mixed uses, connectivity, and networks of pedestrian and bicycle pathways. Modern neo-traditional or new urbanism designs reduce trip lengths and induce non-vehicular use for short trips, especially if also served by mass transit. Studies in California have shown that when compared to

conventional suburban subdivisions with single or few uses, curvilinear streets, and cul-de-sacs, modern new community design can reduce VMT by 50 percent. These adjustments would need to be made on a case-by-case basis.

On this point, it is useful to note that most road impact fee ordinances allow a developer to prepare an "individual fee calculation study" to demonstrate that their project will have less impact on the road system than indicated by the fee schedule. The developer of a mixed-use project could use this option to quantify the reduction in external trips that should be expected due to the nature of the project. For example, the current edition of ITE's *Trip Generation* shows an across-the-board reduction of about 10 percent in trips generated within planned unit developments. Loveland, Colorado, has a provision allowing for the road impact fees to be reduced 25 percent for mixed-use projects that meet certain criteria. As is shown in the Albuquerque case study, variations can range from about 10 to 50 percent depending on the configuration of new development.

Applications of Proportionate Share Impact Fee Variations in Practice

Impact fee enabling statutes and relevant case law require that impact fees be based proportionate to the impact new development has on facilities. Where residential impact varies by occupancy, unit size, density, location, and configuration, these considerations should be taken into account. When done properly, impact fees as presently practiced in many if not most places would be reduced for smaller units on smaller lots in locations where facilities currently exist including public transit and in configurations that economize especially on vehicular trips. In this section, we report the applications of many, albeit not all, of the concepts presented above.

While most impact fees do acknowledge the difference between housing types, such as single-family and multi-family units, few of them vary by unit size. This is beginning to change. For example, one-third of the 18 Florida counties that assessed school impact fees in 2002 based the fees on some measure of dwelling unit size. Three of the counties (Lake, Broward, and Hillsborough) base fees on the number of bedrooms in combination with housing type. Two counties (Martin and Palm Beach) have translated bedrooms into four or five size categories (e.g., a one-bedroom unit is on average less than 800 square feet, etc.). Finally, one county (Miami/Dade) charges school fees on a per square foot basis.

Table 20. Assessment Basis for Florida School Impact Fees

Assessment Basis	Counties
Flat Rate per Dwelling	Volusia
Housing Type	Citrus , Collier, Hernando, Lee, Manatee, Orange, Osceola, Pasco, St. Lucie, St. Johns, Seminole
Housing Type & Bedrooms	Broward, Hillsborough, Lake
Size Categories	Martin, Palm Beach
Square Footage	Miami/Dade

Source: Survey by Duncan Associates, July 2002.

There are several reasons for the continuing predominance of impact fees that do not vary by unit size. One obvious reason is that a flat fee per dwelling unit is easier to calculate and has fewer data requirements. While this is still the case, the data requirements are not insurmountable, and greater resources are now available. The other principal reason for the predominance of one-size-fits-all residential impact fees was legal in nature. In the early days of the development of impact fees in the late

1970s and early 1980s, there were no state impact fee enabling acts, and impact fees were based on the "police power" of local governments to regulate development in order to advance the health and welfare of the community. Great care had to be taken to ensure that impact fees would not be struck down as an illegal tax by the courts. Even today, there is a residual feel by some attorneys that a fee per square foot for residential development may appear more like a tax than a regulatory fee. However, this should no longer be a major concern. Impact fees are explicitly authorized by enabling legislation in 25 states, and are based on well-established case law in most others. In addition, impact fees for nonresidential uses have always been assessed on a square footage basis.

Data on which to base variable rate impact fees are now widely available, much of it on the internet. Data on the relationship between the size of the unit (measured in bedrooms or rooms) and the number of people or public school students living in the unit are available from U.S. census sample data for areas with a population of 100,000 or more. Data on the relationship between the number of bedrooms in a unit and the square footage of the unit are available from real estate and property appraiser data in most communities. These readily available data are sufficient to develop variable-rate impact fees for those types of facilities that are typically charged only on residential uses on a per capita or per student basis, such as park, school, and library impact fees.

To date, few road impact fees have been adopted that vary by the size of the dwelling unit. This is largely because road impact fees are generally based on national trip generation rate data, and the ITE manual[71] does not provide rates by dwelling unit size. However, the fact that trip generation rates for residential uses vary by the size (and even the income) of the household is actually well documented in the transportation planning literature. As shown in Table 21 below, the average number of vehicle trips generated per day is almost directly proportional to the number of people living in the dwelling unit, which as discussed earlier, is strongly related to the size of the dwelling unit.

Table 21. Vehicle Trips by Household Size

Household Size	Daily Trips	PM Peak Hr Trips	
		Single-Family	Multi-Family
One Person	3.5	0.369	0.323
Two Persons	6.7	0.707	0.618
Three Persons	8.8	0.928	0.812
Four Persons	10.6	1.118	0.978
Five Persons or More	12.5	1.319	1.154

Source: Daily trips from Transportation Research Board, NCHRP Report 365, "Travel Estimation Techniques for Urban Planning," Washington, D.C.: National Academy Press, Table 9 (for urban areas with populations of 500,000 to 1 million), 1998; PM peak hour trips based on 10.55% of daily trips in PM peak hour for single-family and 9.23% of daily trips in PM peak hour for apartment units from ITE, *Trip Generation*, 7th edition, 2003.

In order to develop trip rates by the size of the unit in square feet, one must first find the relationship between average household size and size characteristics reported by the Census Bureau. The most recent and reliable data on average household size by number of bedrooms or rooms are the five percent sample

[71] Institute of Transportation Engineers (ITE), *Trip Generation* 7th ed., 2003.

data from 2000 U.S. Census. The five percent sample data for the City of Tucson are combined with sample data for some other cities and unincorporated portions of Pima County. However, the City of Tucson makes up 73 percent of the total population sampled. The results obtained should therefore be representative of the City of Tucson. The average household size for all single-family units from the two samples is identical, and for multi-family is almost identical. Because of the nature of the data sources for unit size in square feet, the average household size was varied by rooms for single-family units and by bedrooms for multi-family, as shown in Table 22.

Table 22. Average Household Size by Rooms and Bedrooms

Housing Type	Sample Households	Weighted Population	Weighted Households	Avg. HH Size
Single-Family, 4 Rooms or Fewer	1,245	58,662	24,141	2.43
Single-Family, 5 Rooms	1,744	91,937	34,494	2.67
Single-Family, 6 Rooms	1,674	93,632	33,617	2.79
Single-Family, 7 Rooms	1,010	60,023	20,513	2.93
Single-Family, 8 Rooms or More	657	44646	13585	3.29
All Single-Family Detached Units	6,330	348,900	126,350	2.76
Multi-Family, Efficiency	433	15,132	10,140	1.49
Multi-Family, One Bedroom	1,409	53,483	32,345	1.65
Multi-Family, Two Bedrooms	1,533	78,925	34,582	2.28
Multi-Family, Three Bedrooms	353	23,902	7,885	3.03
Multi-Family, Four Bedrooms or More	72	6,014	1,533	3.92
All Multi-Family Units	3,800	177,456	86,485	2.05

Source: U.S. Census Bureau, 2000 Public Use Microdata Sample (PUMS), 5 percent weighted sample data for portions of Pima County including the City of Tucson (PUMAs 201, 202, 204, 206 and 207) for households occupying single-family detached and multi-family units.

The above information on household size by room/bedrooms is combined with the trip rate data by household size presented earlier to derive peak hour trip rates by the size of the unit, represented by rooms and bedrooms, as shown in Table 23.

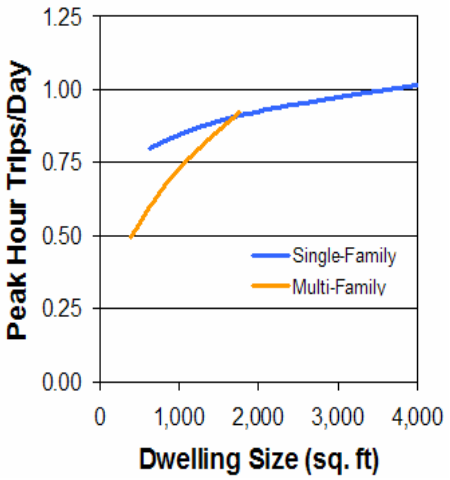
Table 23. Peak Hour Trips by Rooms and Bedrooms

Housing Type	Avg. HH Size	Peak Hr Trips
Single-Family, 4 Rooms or Fewer	2.43	0.806
Single-Family, 5 Rooms	2.67	0.860
Single-Family, 6 Rooms	2.79	0.884
Single-Family, 7 Rooms	2.93	0.917
Single-Family, 8 Rooms or More	3.29	0.983
All Single-Family Detached Units	2.76	0.872
Multi-Family, Efficiency	1.49	0.488
Multi-Family, One Bedroom	1.65	0.546
Multi-Family, Two Bedrooms	2.28	0.683
Multi-Family, Three Bedrooms	3.03	0.822
Multi-Family, Four Bedrooms or More	3.92	0.983
All Multi-Family Units	2.04	0.628

Source: Average household sizes from Table 22; peak hour trips derived from Table 21 using linear interpolation.

To determine a relationship between the unit square footage and peak hour trip rates, a data set was compiled with information on the square footage of dwelling units from single-family detached and multi-family units derived from two different data sources. For single-family detached units, the Pima County Tax Assessor data for the 2004 tax year was analyzed. Tax Assessor data give total living space in square feet and the total number of rooms for the majority of single-family homes in the City of Tucson. Data from the Arizona Multi-Family Housing Association provides information on all apartment complexes in the City of Tucson consisting of 20 or more units. This information includes the number of dwelling units by floor plan, and the floor plan information includes number of bedrooms and square footage. From these two data sources, a stratified random sample was taken that was distributed in the same proportion by housing type and size (rooms for single-family and bedrooms for multi-family) as households from the 2000 Census.

Figure 1. Relationship of Trips to Size



The combined data base consisted of information on 10,000 single-family detached and multi-family dwelling units. To this data base, a variable for peak hour trips was added, based on housing type and number of bedrooms or rooms shown in the preceding table. Regression analysis was then performed to determine the relationship between unit size in square feet and persons residing in the unit. Housing type turned out to be significant, with single-family and multi-family units displaying much different relationships.

Both linear and logarithmic regressions were performed for single-family detached and multi-family data sets. In both cases, logarithmic equations were determined to provide the best explanation of the data.[72] The curves described by the equations are shown in Figure 1.

While the equations for single-family detached and apartment units are very different, there is actually relatively little overlap and at 1,125 square feet, the midpoint of the 1,000 to 1,250 square feet category, the two equations produce the identical result. Only 2.2 percent of the apartment units in the sample are larger than 1,250 square feet, and while 21.6 percent of the single-family units in the sample are less than 1,000 square feet, it is unlikely that very many homes that size are being built in Tucson today. Consequently, the progressive residential rates were based on the multi-family equation for up to 1,000 square feet, and on the single-family equation for the larger size categories.

Using the regression equations, peak hour trip rates were derived for 12 square footage size categories. The two curves intersect in the 1,250 to 1,500 square foot range. Since the multi-family equation yields the lower trip rate estimates, and since relatively few single-family units are being built in the lower size range, the multi-family equation is used for unit sizes less than 1,500 square feet, and the single-family equation for larger units. The results are shown in Table 24.

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72 The equation for single-family detached units is Ln(y) = 0.1271 * Ln(x) - 1.0433, where y is peak hour trips per day and x is the floor area of the unit in square feet; the R^2 is 0.600 and the t-statistics are 94 for the x-coefficient and -108 for the y-intercept. The equation for multi-family units is Ln(y) = 0.4182 * Ln(x) - 3.2062; the R^2 is 0.763 and the t-statistics are 114 for the x-coefficient and -135 for the y-intercept.

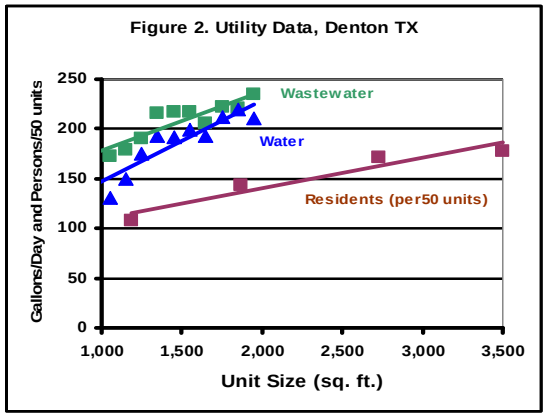
Table 24. Residential Road Impact Fees by Size Category

Housing Type/Size Category	Midpoint	Peak Hour Trips	Road Fee
Less than 500 sq. ft.	375	0.48	$2,186
500 - 749 sq. ft.	625	0.60	$2,743
750 - 999 sq. ft.	875	0.69	$3,198
1,000 - 1,249 sq. ft.	1,125	0.76	$3,462
1,250 - 1,499 sq. ft.	1,375	0.83	$3,829
1,500 - 1,999 sq. ft.	1,750	0.91	$4,196
2,000 - 2,999 sq. ft.	2,500	0.95	$4,386
3,000 - 3,999 sq. ft.	3,500	0.99	$4,562
4,000 sq. ft. or more	4,500	1.03	$4,738

Source: Duncan Associates and Dr. James C. Nicholas, *Road and Park Impact Fee Study for the City of Tucson*, June 2004.

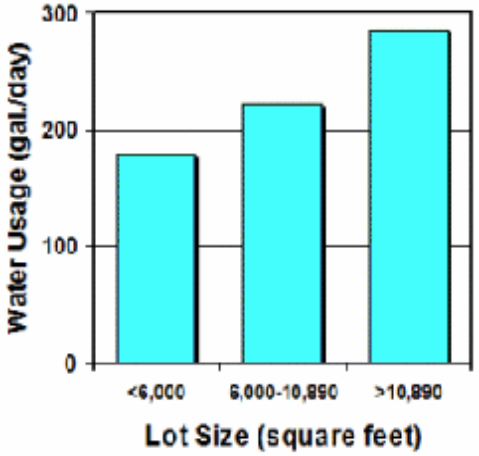
Like road impact fees, water and wastewater impact fees are seldom varied by unit size. In the vast majority of cases, fees are charged based on the size of the water meter, although a sizable minority are charged residential fees on a per dwelling unit basis. In a few communities, residential fees are charged on the basis of the number of water fixtures.

While the authors are unaware of any national statistics on the relationship between water consumption and wastewater generation by dwelling unit size, that there is a relationship certainly makes intuitive sense. Larger units tend to house more people, and water and wastewater demand forecasts are mostly a function of the projected increase in population. One would expect larger households, who tend to occupy larger homes, to have greater demand for water and wastewater services than smaller households. In fact, there is some limited data from Denton, Texas, which tends to support this conclusion.



The Denton Municipal Water Utility provided data on water and wastewater demand for single-family units between 1,000 and 2,000 square feet in 100-square-foot blocks for the years 1998 and 1999. Census data information was available for Denton County on the average household size for two-bedroom, three-bedroom, four-bedroom and five-bedroom or more single-family units for 1990. Finally, the average square footage of single-family units was determined for each bedroom category from realtor listings for January, 2003. All of these data are plotted in Figure 2.

Figure 3. Water Use by Lot Size, Santa Fe, NM

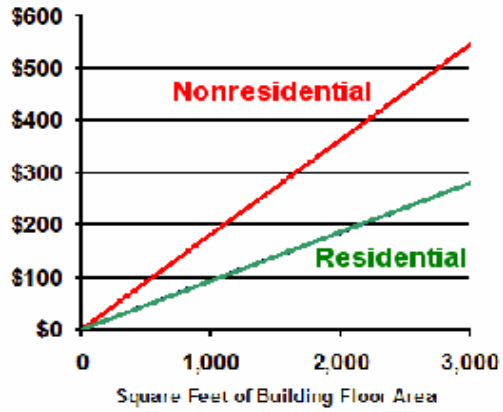


While the utility demand data are only available for smaller units (the average apartment in Denton used 203 gallons per day during this same period), they indicate that utility demand increases with dwelling size even more strongly than household size increases with dwelling size. These data support the reasonableness of using average household size as an indicator of water and wastewater demand. Several communities have used this relationship to base

utility fees on the square footage of the residential dwelling unit, including Orange County, North Carolina; and Collier County, Florida.

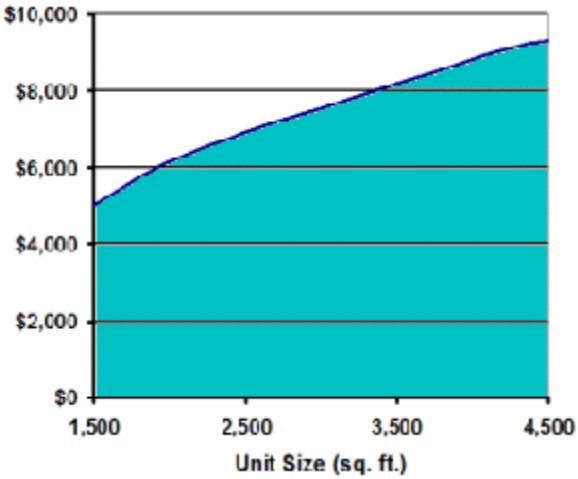
Some water impact fees are based, not on the size of the dwelling unit, but on the size of the lot, due to the fact that larger lots require more water for landscaping, which is the biggest use of water during the peak summer months. Santa Fe, New Mexico, recently adopted water impact fees that vary by lot size, based on a study of water use records that found water usage is strongly related to lot size, as shown in Figure 3. Other communities with water fees that vary by lot size include Basalt, Colorado; Fort Collins, Colorado; and Scottsdale, Arizona.

Figure 4. Calculated Fire Fees, Santa Fe, NM



Most fire and police impact fees are based on calls-for-service data. Unfortunately, emergency call data are seldom available by the size of the dwelling unit. Another drawback is that calls for individual land uses can fluctuate significantly from one year to the next. An alternative approach is to use call data only to determine a cost allocation between residential and nonresidential development. Based on the reasonable assumption that the cost to serve development will increase proportionately to the square footage of new development, the residential cost per square foot can be determined by dividing the cost to serve residential development by the amount of residential square footage (the same can be done for nonresidential). This was the approach used in developing fire impact fees for Santa Fe, shown in Figure 4.

Figure 5. Sum of Fees in Santa Fe, NM



While many communities have adopted variable-rate impact fees for individual facilities, few have implemented variable fees by dwelling unit size for a broad array of facilities. One community that has adopted such a set of impact fees is Santa Fe, New Mexico. The sum of that city's water, wastewater, road, park, police, and fire impact fees is illustrated in Figure 5.

Conclusion: Moving Toward Truly Proportionate Impact Fees

As seen in other briefing papers the concept of calculating impact fees based on “proportionate share” principles has long been established but the details have been lacking. The example of Volusia County, Florida was given because like many other communities the idea of proportionate share is reduced simply to facility needs per residential unit without respect to type, size, location, density or configuration. Strictly speaking, this may meet the minimum legal test justifying impact fees – after all in Dolan v. Tigard the US Supreme Court asserted that while a relationship needs to be established between the impact of development and the mitigation needed there is no need for a precise calculation – but this begs the question. If housing affordability is a concern, impact fee calculations need to truly embrace proportionate share principles. This briefing paper outlines how to address many of the details.

As seen in the examples reviewed in this briefing paper, impacts vary by residential unit type, size, density, location, and configuration. The differences in impact between large detached homes on large lots in low-density settings far away from commercial centers and the same-sized home on a small lot in higher-density settings closer-in may be considerable. Peak water demand may be more than double, road impacts can be higher and public safety costs three or four times more in lower-density settings than in higher-density ones. As shown above, total impacts per person between the lowest- and highest-density categories are about 2.5 times and are nearly double between the second-least and second-most dense categories across all unit types (see Table 16). These differences are attributable to density and indirectly by location. When considering variation on occupancy by type and size of unit, the differences become even more stark being about four times between large homes in the lowest-density settings and apartments in the highest-density settings and about 2.5 times between the second-least and second-most densely settled areas (see Table 17).

These examples of refined use of proportionate share impact fees can aid in lowering fees assessed on low- and moderate-income housing below the average cost, thereby aiding in the production of such housing. Census data, transportation data, utility data, and public safety response data show clearly that impact fees calculated on the basis of unit size, perhaps including consideration of unit type, are more proportionate than averaging costs across all dwelling units or even by type of unit. Case law so far does not require apportioning impact fees by unit type or size but given the weight of the statistical evidence this may only be a matter of time. Communities that calculate impact fees based on dwelling unit type, size, density, and location, and allow for fees to be tailored to account for configuration, will likely ensure that by themselves impact fees are not necessarily an impediment to the production of affordable housing.

There is a final consideration relating to courts and impact fee enabling statutes. At the moment, neither courts nor state enabling statutes have addressed impact variations based on these factors. It may be a matter of time before either one or both occur. However, waiting for this to happen is not necessary. The basic calculation methods and data are already available, as shown in this paper, to refine impact fees to substantially reduce any potentially adverse effect that they have on housing affordability. It may also be the case that generally available data could be used to challenge impact fee schedules not considered truly proportionate with respect to type, size, density, location, and perhaps, to configuration.

IMPACT FEE HANDBOOK

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Impact Fee Handbook

National Association of Home Builders

This publication is designed as a resource to provide accurate and authoritative information in regard to the subject matter covered with the understanding that its authors are not engaged in rendering legal, accounting, and other professional service. If legal advice or other expert assistance is required, the services of a competent professional person should be sought.

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Contents

CHAPTER 1

Introduction

- ***What Are Impact Fees?***
- ***Why Do We Have Impact Fees?***
- ***Local Government Fiscal Stress and the Rise of Impact Fees***

The United States is experiencing a public infrastructure financing deficit that is the result of increasing demand for new and upgraded infrastructure systems coupled with diminished fiscal resources. Communities have turned to impact fees as a politically expedient means by which to construct public infrastructure systems. However, the use of impact fees may shift much of the financial burden away from all public infrastructure users (the general public) to a narrow segment of the public—homebuilders and new homebuyers. Aside from basic issues of fairness and equity, the use of impact fees raises legal, economic, technical, administrative, policy, and financial concerns for interested parties.

This Handbook was developed to provide homebuilders and other parties interested in impact fees a resource for exploring these issues and to provide strategies for achieving balanced infrastructure financing solutions.

The Impact Fee Handbook includes the following sections:

- Legal Aspects of Impact Fees
- Economic Aspects of Impacts Fees
- A Closer Look at Impact Fee Technical Studies
- Administrative Issues
- Alternatives to Impact Fees
- Political and Public Relations Strategies
- Appendices:
  - **A** Case Studies
  - **B** State Impact Fee Enabling Legislation Summary Chart
  - **C** General Impact Fee Statute Considerations
  - **D** Arizona, Montana, and Texas Impact Fee Statutes
  - **E** Resources

While each section of the Handbook was designed to stand on its own, the Handbook's value lies in connecting each section so as to present the reader with a comprehensive picture of impact fees. It is recommended that the reader familiarize him or herself with the contents of the entire Handbook and then read in depth the sections most relevant to your situation. If there are areas that should be covered based on real world success and

failures in working with impact fees, readers are encouraged to let the staff at NAHB know so they can be addressed in future Handbook updates.

What Are Impact Fees?

Generally, impact fees are charges levied against new development in order to generate revenue for the purpose of funding capital improvements necessitated by that development. *Impact fees should not be confused with subdivision exactions that require developers either to "dedicate" land for public use or contribute cash in lieu of land for the purchase of land or facilities perceived to be necessary by local governments.* As a fundamental tool, impact fees are broader and more flexible than subdivision exactions. Impact fees can be levied on various types of development, including subdivision, condominium, commercial, and industrial projects. Unlike subdivision exactions, impact fees can be used to fund the construction of offsite facilities.

Typically, impact fees are:

- levied on an "up-front" or "front-end" basis, usually at the time of building permit issuance or subdivision approval;
- dedicated to a specific public use, such as a transportation facilities, sewer facilities, water facilities, or parks and recreation facilities, etc.;
- calculated on the basis of the number of residents or bedrooms in a dwelling, the square footage of a building, the linear footage of the front property line, or as a flat fee per unit or building lot, or some other formulation; and,
- prescribed by ordinance, although the dollar amount may or may not be specified.

Government has long imposed narrower charges for a variety of onsite capital improvements, including sewer and water hookups, storm water management facilities, and street and sidewalk construction. More recently, though, communities have levied impact fees on developers for a number of offsite improvements such as the development of community-wide recreational facilities, the construction of highway segments, or the expansion of centralized wastewater treatment plants. Often the need for these services and facilities is only indirectly attributed to a specific subdivision or project, giving rise to developer objections to funding such general improvements.

Impact fees range from several hundred to hundreds of thousands of dollars per home or building. They raise such fundamental social questions as:

- Who *really* pays?
- How is the fee calculated?
- Where does the money go?
- How and where is the money spent?
- Who *really* benefits from the new or expanded public facilities? What is the impact on housing costs?

- How is economic development affected? What are a community's financing alternatives?
- How does an impact fee policy mesh with a community's and region's affordable housing policy?
- Is new development being required to pay its *fair* share or something more?

Why Do We Have Impact Fees?

Impact fees were initiated in the 1970s in Florida and California—areas facing high growth and restrictive tax systems. Coupled with cutbacks in federal aid, local governments began searching for a new funding source: impact fees. In reality, many of these "fees" are a hidden charge placed upon a discrete segment of the general public—those citizens moving into new houses and apartments. In many, if not most, cases, consumers paying these charges already live in the community. They are first-time or move-up home buyers, and new families or individuals leaving their parent's home. .

The use of impact fees has spread rampantly as a result of several factors. Local governments are often pressed to extend public services to urban expansion areas because of a strong market preference for suburban housing products coupled with an expanding population base and rapid rate of new household formation. In particular, governments in high-growth areas struggle to keep pace with the demand for new public services while simultaneously maintaining and repairing existing public facilities. The cost of constructing new public infrastructure has increased substantially over the past decade as local governments compete in a globalized marketplace for raw materials, while at the same time, spending more to meet stringent federal and state mandated design standards. Nonetheless, citizens expect local governments to maintain existing levels of service despite diminishing fiscal resources.

Traditionally, local government has financed public services through (i) general fund revenues and (ii) the issuance of general obligation bonds that are repaid by future property tax collections, or (iii) revenue bonds that are paid through the net revenues of the utility constructing the improvements. General obligation bonds are defined as a debt liability backed by the full faith and credit of the issuing community. Revenue Bonds are backed by the full faith and credit of the community's utilities. Any of these approaches tends to be politically unpopular with existing residents.

Communities argue that the use of these financing mechanisms may require property tax increases, utility rate increases, or reductions in existing services. In addition, many states have adopted constitutional or statutory limitations on a local government's ability to issue debt, commonly including a requirement to attain approval by a majority or supermajority of voters.

In addition, voters across the nation have passed tax-cutting measures, including California's Proposition 13 and Massachusetts' Proposition $2^1/_2$, to limit the ability of local governments to raise taxes and to reduce the scope of government and government-supported services.

One consequence of the popularly termed "taxpayer revolt" is the emergence of local government policy that deems residential development acceptable only if it can "pay its own way." In many communities, public officials maintain that new development exacts public costs that exceed expected benefits. Decision makers, therefore, are frequently reluctant to approve development proposals that would require significant and politically unpopular outlays for service expansion. If they do approve development, local policy makers often condition permission to build on the payment of impact fees, effectively shifting some of the responsibility for service and facility provision from the public to the private sector.

Usually, however, decision makers fail to recognize the broad range of benefits associated with new development. They look only to the short term costs rather than to the full range of benefits a new development project generates at the time of project completion such as increased property tax revenues and other economic contributions by new households.

Impact fees generally do not require voter approval nor do they result in property tax or utility rate increases, at least directly, paid by current residents.

Local Government Fiscal Stress and the Rise of Impact Fees

During the past 30 years, many local governments have experienced some degree of fiscal stress resulting from rising service demands and from constraints on their ability to raise revenues. Fiscal stress, broadly defined, is when public service demands grow because of increasing population, inflation, rising real incomes, or other reasons, while the local revenue base—taxes, grants, and user fees and charges—does not grow fast enough to meet the increased public service demands. The difference in the growth rates of service demands and revenues necessitates either increases in tax rates or decreases in the level of services, or some combination of the two.

Another source of fiscal stress may have come from decreasing aid from the federal government, in part resulting from the changing focus of the federal government away from domestic issues to foreign policy, national defense, and homeland security.[1]

For an aggregation of all local governments, there is no definitive measure of effective tax rates. A crude measure of effective tax rates is local general revenues from their own sources (that is, total revenues less revenues from locally owned public utilities, transit systems, local employee retirement systems, and federal and state aid), as a percentage of Gross Domestic Product (GDP). This ratio provides an estimate of effective local government revenue-raising efforts since it measures their own-source general revenues (OSGR) relative to aggregate output (GDP).

During the 30-year period from 1966 to 1996, the period that includes the "tax revolts" in California and Massachusetts, local governments lessened their reliance on property taxes. In 1966 revenues from property taxes comprised nearly half of the total local

revenues, however, 30 years later, in 1996, the property taxes only comprised 28 percent. [2] Since 1966, local governments confronting rising service demands from mandates from higher levels of government and their own constituents and constrained from increasing property taxes, raised revenues from other sources.

Rising Service Demands

Population growth visibly increases public service demands. Roads, schools, and other public facilities become more congested. In order to keep a constant level of public services, the local public capital stock must expand to reduce congestion (assuming there was no excess capacity prior to growth). Inflation also increases the cost of providing public services, as local governments must pay more for their purchases of goods and services, including employee compensation.

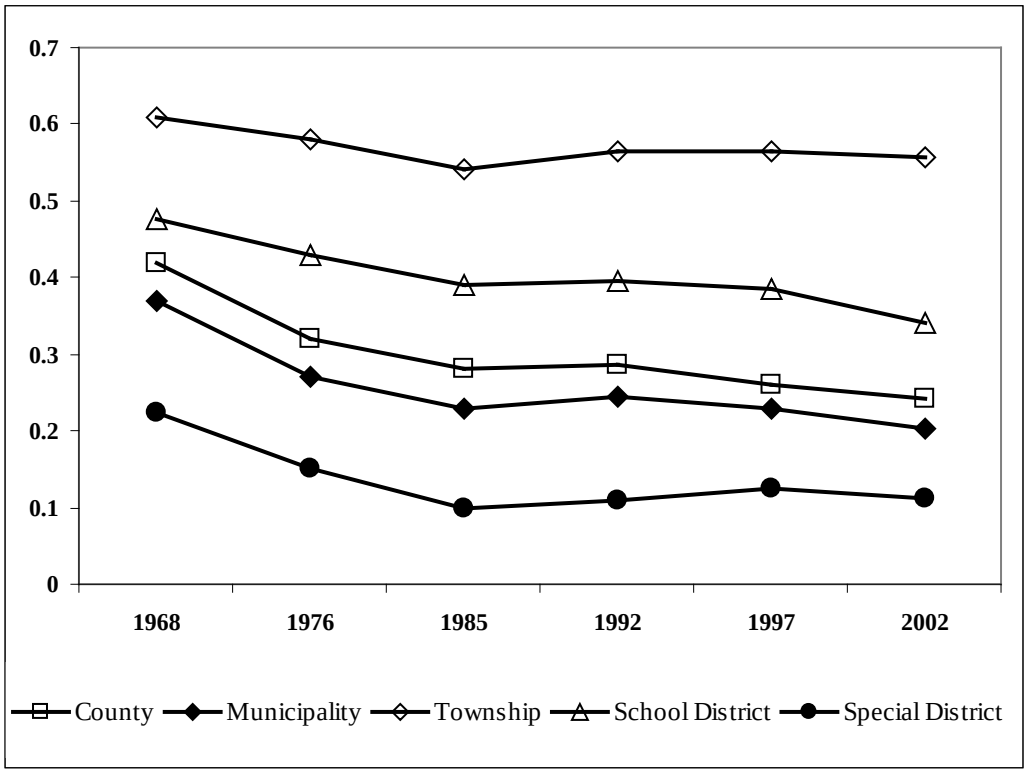
Another source of pressure on local governments for increased public services comes from higher levels of government. Since the mid-1960s, both federal and state governments have increasingly turned to mandates on local government to provide for increased levels of environmental protection, increased quality of public education, and upgraded jail facilities, to name a few. For local government officials, these mandates from higher levels of government are particularly burdensome because they are often completely unfunded. Local officials must devote portions of their fiscal resources to satisfying the requirements of federal and state governments rather than addressing local priorities.

Revenue Constraints

Two other sources of fiscal stress on local government are constraints on their ability to raise local revenues and decreased state and federal aid. According to Altshuler and Gomez-Ibanez (1993, p. 23), voter discontent with taxes of all sorts grew during the 1970s, when real incomes were flat or declining but effective tax rates were rising.[3] The most visible manifestations of voter dissatisfaction with property taxes came in 1978 with the passage of Proposition 13 in California and Proposition $2^1/_2$ in Massachusetts.[4] These pieces of legislation required their respective state governments to stabilize effective property tax rates at the levels that prevailed in the mid-1970s. Fee and miscellaneous revenues have increased substantially compared to property taxes as a result of property tax limitations placed on local governments. By 1999, 23 states generated more local revenue from fees and miscellaneous income than property taxes, an increase from only three states in 1972. The increased dependence of local governments on sources of revenue other than property taxes has led to a decrease in local property taxes as a share of general revenue. Overall, the proportion of property taxes as a part of general revenue has decreased from an average of 40.3 percent in 1972 to 29.1 percent in 1999.[5]

The chart on the following page highlights local property tax revenue as a proportion of general revenue from 1968 to 2002.[6]

Figure 1.1: Local Property Taxes as a Proportion of General Revenue (1968 – 2002)



Source: 1968-1997 data from chart in "State and Local Finances under Pressure", edited by David L. Sjoquist, 2003. 2002 data obtained from the U.S. Census Bureau. Census of the Governments. www.census.gov/govs/www/

Opposition to property taxation also came from groups concerned about the inequality of per-pupil expenditures for elementary and secondary education among school districts within their states. Reliance on local property taxes to finance public schools allowed school districts with high levels of property wealth per pupil to fund high-quality programs with relatively low effective tax rates, while school districts with low levels of property wealth per pupil were forced to levy relatively high effective tax rates to fund lower-quality programs. These groups argued that state aid did not sufficiently reduce inequalities in per-pupil spending across the state, and that the remaining inequalities violated the state constitutional provisions of adequate education spending for all pupils. Successful court cases in California, New Jersey, Iowa, Texas, and other states required states to reallocate state aid and, in some instances, to reduce reliance on property taxation for financing public education. The Michigan legislature has acted to require the state to assume full responsibility for school funding in place of local property taxes.

Declining Federal and State Aid

Further exacerbating local government fiscal stress has been the relative decline in aid from higher levels of government for the past 30 years. The changing composition of federal and state aid since the late 1970s has adversely affected the ability of state and local governments to finance infrastructure. A stark decline in aid from the federal level of

government has contributed to the growing problem. To compensate for the declining fiscal assistance from the federal government, local governments have pursued other revenue sources.

Economic factors have also played a role in decreasing government aid. For example, poor economic conditions during the 2001 recession created additional fiscal pressure on local governments. State and federal government tax collections decreased, which meant less funding was appropriated to local governments. As a result, local governments tapped reserves, raised existing fees and charges, and adopted measures to create diverse revenue sources to fill the revenue gap.[7]

Local Government Response to Fiscal Stress

The fiscal stress confronting local governments and, to a lesser extent, state governments, forced many state and local government officials to find ways to reduce expenditures. Reducing current service levels is politically difficult because diminished service levels are readily visible to constituents and are often as contentious as tax increases. One method of limiting expenditure growth is to reduce spending for infrastructure maintenance. This expedient choice allows local officials to keep other services at current levels, and the effects of deferring maintenance spending are not readily or immediately apparent.

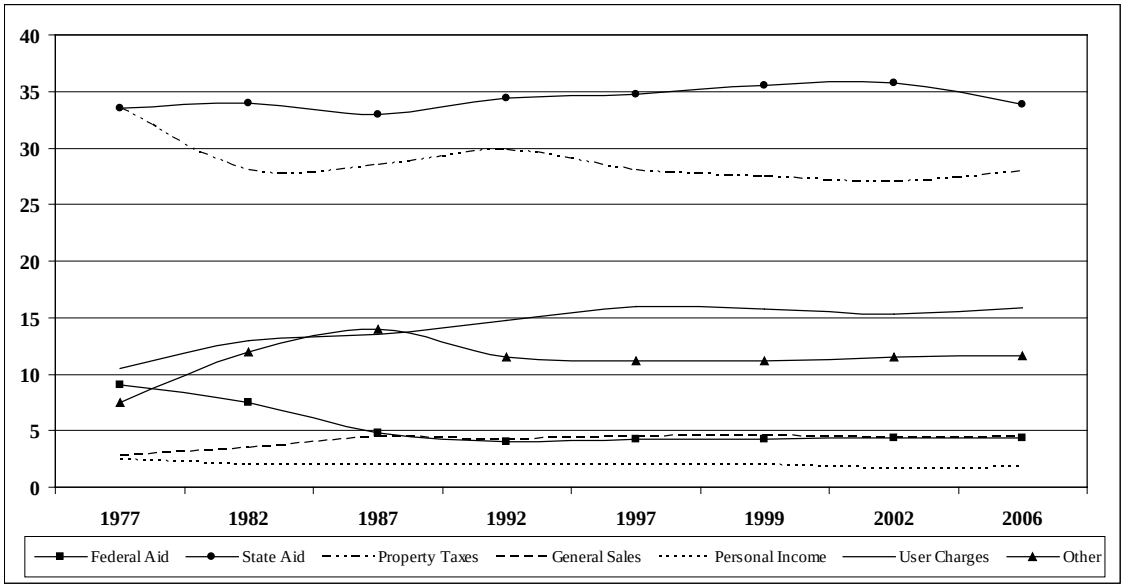
The deadly collapse of the I-35W Bridge in Minneapolis in 2007, and the catastrophic failure in 2005 of the levees in New Orleans following Hurricane Katrina punctuate the nation's current infrastructure maintenance crisis. These failures are a symptom of the nation's systemic neglect of infrastructure which, according to a 2007 Urban Land Institute report, has resulted in a $1.6 trillion deficit in needed repair and maintenance spending through 2010.[8]

Revenue Diversification

Local governments diversified their sources of general revenues in response to opposition to property taxes. During the 1970s, property taxes accounted for approximately 34 percent of locally raised general revenues. Between 1977 and 1999, the proportion of local own source general revenues from property taxes fell from 34 percent to 27 percent (see graph below). Sales taxes, which had provided approximately 3.5 percent local own-source general revenues in the 1970s, accounted for approximately 4.5 percent of local government OSGR by 1999. Approximately 16 percent of all local OSGR came from user charges and miscellaneous revenues by 1999.[9]

The graph on the following page highlights the share of funding sources contributing to local general revenues from 1977 to 2006.

Figure 1.2: Share of Funding Sources Contributing to Local General Revenues (1977 – 2006)

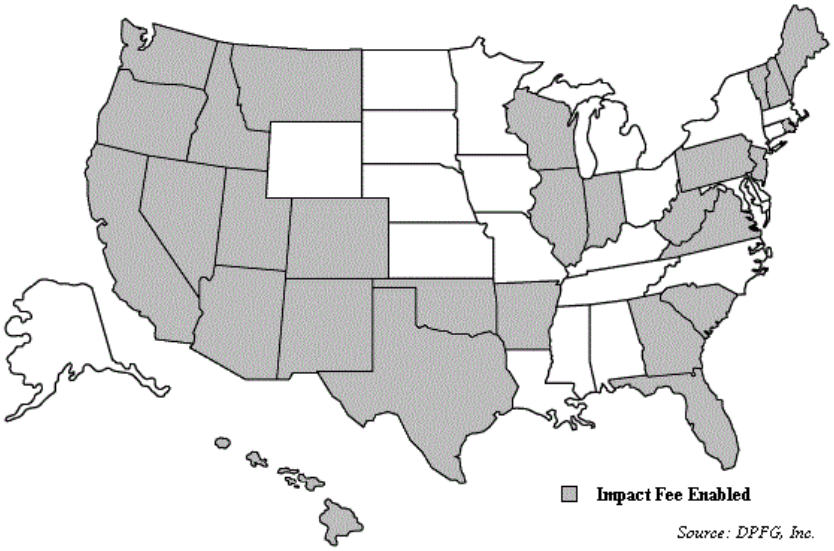


Source: Robert Tannenwald, Are State and Local Revenue Systems becoming Obsolete?, National Tax Journal, Sept. 2002.
U.S. Census Bureau. Census of the Governments: 1977, 1982, 1987, 1992, 1997, 1999. www.census.gov/govs/www/. 2002, 2006 data updated utilizing the same source.
Footnote: "Other" category consists of: selective sales, corporate income, motor vehicle license tax, other taxes, and miscellaneous general revenue.

Impact Fee Usage

The use of impact fees has spread widely throughout the United States, especially in regions affected by rates of growth and development including southern and western states. It is less common for communities in Midwestern or northeastern states to utilize impact fees. As of 2015, twenty-nine (29) states had impact fee enabling statutes. In addition to states with impact fee enabling statutes, communities in "home-rule" states may also use impact fees even if a state enabling statute has not been enacted.

Figure 1.3: States with Impact Fee Enabling Acts (2015)



According to statistics publicized by the Government Accountability Office (GAO), 39 percent of counties and 59 percent of communities with populations greater than 25,000 imposed some type of impact fee to finance infrastructure.[10]

Where impact fees are utilized, the dollar amount per home has grown substantially over the years. For example, Snyder and Stegman (1986, p. 76), citing a California Building Industry Association study, found that the average impact fee, measured in 1983 dollars, on a single-family detached house, with 3 bedrooms, rose from $1,087 in 1975 to $6,847 in 1983, or 511 percent.[11] Based on more recent surveys conducted by Duncan Associates, a similar new home in California would require impact fee payments of approximately $22,154 in 2012 and $23,455 in 2015, representing a 6% increase in over the four year period.[12]

Conclusion

In light of the economic pressures on local governments, it is easy to understand why local governments are increasingly turning to impact fees for the provision of public services. *For growing communities, impact fees represent a vast store of potential revenue that can be tapped at less political cost than other sources. This does not mean, however, that impact fees are always the best or wisest solution for the financing of public infrastructure when taking into account social equity considerations and the need to maintain long-term community support for capital spending programs.*

Endnotes

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CHAPTER 2

Legal Concepts of Impact Fees

- ***Authority to Impose Impact Fees***
- ***Impact Fees as Unlawful Taxes***
- ***Federal and State Constitutional Issues***

This chapter discusses general legal principles that apply to typical impact fees. Because these principles vary from state to state, it is important to consult with counsel when faced with an impact fee ordinance.

There are three key legal concepts that have a direct bearing on whether the fee has been validly enacted and applied. First, a municipality must have authority to enact the impact fee—either from a state enabling statute or implied by other legal authority. Second, the impact fee must not be imposed in a manner that makes it an unlawful "tax in disguise." Third, an impact fee must be constitutional. Additionally, organizations and individuals who are considering a challenge to an impact fee must be able to show that an injury has occurred as a result of the impact fee.

Authority to Impose Impact Fees

Without the proper legal authority, municipalities are unable to enact an impact fee. This authority is express—granted by a state legislation—or implied by a municipality's inherent powers.

Enabling Legislation

Many states have enabling legislation which specifically authorizes impact fees. These statutes usually are beneficial for builders as they help to establish certainty and transparency in the development process. Impact fee statutes usually require municipalities to follow prescribed procedures when implementing local impact fee programs.

Georgia's enabling statute, for example, allows municipalities and counties to charge development impact fees if they first enact a comprehensive plan with a capital improvements section. The statute establishes legislative intent, outlines definitions, procedures and the appeals process to be used in the implementation of any impact fee. Ga. Code Ann. §§ 36-71-1 *et seq.* (2006). Most notably, Georgia's statute requires municipalities to form an advisory committee, which includes representatives from the development industry, to assist with the creation of an ordinance. Ga. Code Ann. § 36-

71-5 (2006). If the municipality fails to properly form this committee, the impact fee is invalid.

When municipalities fail to follow the procedures or parameters outlined in a state enabling statute, the resulting impact fee ordinance may not have been properly enacted. In some states, municipalities must strictly follow the planning and zoning procedures outlined in the enabling statute. For example, an impact fee ordinance in Idaho was invalidated because the city was located within a county containing less than 200,000 people, the minimum imposed by the state law for empowering cities to impose development impact fees. *Idaho Building Contractors Ass'n v. City of Coeur D'Alene*, 890 P.2d 326 (Idaho 1995).

On the other hand, some state courts have upheld impact fees even when a municipality has not strictly followed all of the procedures in the state's enabling statute. For example, in *Charleston Trident Home Builders, Inc. v. Town Council of Summerville*, 632 S.E.2d 864 (S.C. 2006), a court found that a municipality "substantially compli[ed]" with an enabling statute even though its capital improvements plan did not incorporate every element required by the statute.

Usually, impact fee enabling statutes classify what type of infrastructure may be improved through the use of impact fees. For example, Virginia's statute authorizes municipalities to use impact fees for road improvements, but additionally allows for public facilities impact fees only on properties that are currently zoned agricultural and are being subdivided for by-right residential development. Va. Code Ann. § 15.2-2317 – 2329. If a municipality attempts to impose an impact fee for infrastructure not authorized under the enabling statute, there is a strong likelihood that it is invalid. An impact fee for school improvements was invalidated in Nevada because the enabling statute did not specifically authorize school impact fees. *Douglas County Contractor's Ass'n v. Douglas County*, 929 P.2d 253, 259-261 (Nev. 1996).

Implied Authority

In the absence of a state enabling statute, municipalities must have some other source of authority from the state before they may impose an impact fee. Municipalities are commonly described as operating under either home rule or Dillon's Rule. This important distinction has a direct bearing on a municipality's ability to enact impact fees and other growth control measures.

Municipalities which operate under Dillon's Rule are limited to those powers which have been expressly granted by the state.[1] Therefore, a Dillon's Rule municipality must be able to rely on a state enabling statute before it has authority to impose an impact fee. In a classic Dillon's rule case, the Supreme Court of New Hampshire invalidated an impact fee because the municipality had not been expressly granted this power under the statute authorizing municipalities to charge administrative fees. *Bd. of Water Comm'rs v. Mooney*, 660 A.2d 1121 (N.H. 1995).

Some Dillon's Rule municipalities have argued that their ability to enact impact fees stems from their general planning and zoning authority—which usually includes the ability to impose fees. This argument, however, may be on the decline because courts have proven unwilling to equate the authority to impose administrative fees with the authority to enact an impact fee.[2]

On the other hand, home rule municipalities have a greater degree of independence over their regulation of land use. Generally, home rule municipalities have broad discretion in the exercise of their planning and zoning powers, so long as their regulation does not conflict with state law.

Home rule municipalities often rely on this authority to justify their ability to enact impact fees.[3] For example, a Nebraska court upheld an impact fee under a city's home rule charter—finding that the city's home rule authority was sufficiently broad that it included the authority to impose taxes on development. *Home Builders Ass'n v. City of Lincoln,* 711 N.W.2d 871 (Neb. 2006).

In contrast, other courts have imposed greater limits on the ability of home rule municipalities to enact impact fees.[4] The Supreme Court of Mississippi, for example, held that the state's home rule statute did not allow the municipality to assess impact fees without express enabling authority. *Mayor of Ocean Springs v. Homebuilders Ass'n,* 932 So.2d 44 (Miss. 2006). The court distinguished the municipality's ability to impose fees with its ability to enact taxes. The court noted that, under Mississippi's constitution, general municipal services must be funded by traditional tax revenue, and the state had to explicitly authorize an alternative method, such as impact fees.

Impact Fees As Unlawful Taxes

As the Mississippi case shows, it is important to determine whether an impact fee actually amounts to an unlawful tax—even when a municipality might otherwise have authority to impose the impact fee. The central distinction here is that the power to tax is separate from the state's police power. As put by the Arizona Supreme Court, in *Casa Grande v. Tucker,* 817 P.2d 947, 950 (Ariz. 1991):

> *A tax is imposed upon the party paying it by mandate of the public authorities, without his being consulted in regard to its necessity, or having any option as to its payment. The amount is not determined by any reference to the service which he receives from the government, but by his ability to pay, based on property or income. On the other hand, a fee is always voluntary, in the sense that the party who pays it originally has, of his own volition, asked a public officer to perform certain services for him, which presumably bestow upon him a benefit not shared by other members of society.*

Whether an impact fee results in an unlawful tax depends on the facts of a specific case and specific tests created by state courts. Frequently, courts examine where the impact

fee funds are going in any tax vs. fee analysis. If an impact fee is used to raise revenue for general public infrastructure, instead of defraying the impact of development on a specific type of infrastructure, the impact fee takes on characteristics of a tax. *Courts also look at whether those who pay the impact fee are, in fact, causing the infrastructure problem and whether the proceeds being applied to infrastructure will benefit those who pay (development) and not just the public as a whole.*[5]

Federal and State Constitutional Issues

Even when a municipality has properly enacted an impact fee ordinance, it must still meet certain constitutional requirements before it can be considered valid. Impact fees may be challenged on three grounds under the U.S. Constitution: (1) the ordinance violates a developer's due process rights; (2) it results in a violation under the Equal Protection Clause; and (3) the fee is an unconstitutional exaction under the Fifth Amendment. Regarding due process and equal protection, the status of the law mostly well-settled. Unfortunately, the legal atmosphere is less settled concerning claims that impact fees are unconstitutional exactions.

In addition, note that state constitutions and state statutes often provide similar protection to the U.S. Constitution and can often be brought as separate claims under a single lawsuit.

Violations of the 14th Amendment—Due Process & Equal Protection

The Due Process Clause of the Fourteenth Amendment to the U.S. Constitution prohibits states from depriving any person of their property without due process of law. When the government has acted arbitrarily and/or irrationally, the developer can bring a due process claim and may be entitled to damages under 42 U.S.C. §1983, and/or injunctive relief. Similarly, when the government has discriminated against the developer, the developer can bring an equal protection claim under 42 U.S.C. §1983.

Due Process

An impact fee ordinance may be challenged under the due process clause even though the municipality has acted within its police powers to protect the public. Due process claims focus on whether the impact fee in question is a *reasonable* exercise of the state's police power. To raise a successful due process claim, the developer must show that the municipality's interference with his property rights was arbitrary, irrational and capricious.

Substantive Due Process

In substantive due process cases, most courts use a three pronged test. *First, is the exaction rationally related to a legitimate public purpose? Second, are the means adopted to achieve this purpose reasonably necessary? Third, is the regulation unduly*

oppressive on the property owner? If the ordinance fails any of the three prongs of the test, it will be invalidated. The third prong is generally the most disputed.

Although the third prong requires the application of a "balancing test" between the rights and needs of the public versus the rights of the individual property owner, there are several factors used to determine whether the ordinance is unduly oppressive: (1) the nature of the harm sought to be avoided; (2) the availability and effectiveness of less drastic means of achieving the goal of the ordinance; and (3) the economic loss suffered by the property owner.

It is difficult to overcome the test used in substantive due process challenges. Therefore, such challenges are not often successful.

Procedural Due Process

In procedural due process cases, an ordinance imposing exactions on developers may be challenged if it was not enacted under the proper procedures set forth in the state enabling legislation. *Whether a municipality has violated a developer's right to procedural due process often depends upon local law. The procedural due process afforded to an individual will vary according to each state's own laws but generally, the developer will be entitled to fair notice and a hearing on the issue at hand.*

Raising a claim of procedural due process is not an effective way to prevent the imposition of an exaction. In effect, a procedural due process violation serves merely as a delaying tactic. Following a judgment in favor of a developer claiming a violation of procedural due process, the municipality will often reenact the exaction legislation with the necessary corrections to ensure the protection of procedural due process rights.

Equal Protection

In some cases an exaction may also be challenged on the theory that it violates the right to equal protection. The Equal Protection Clause of the Fourteenth Amendment ensures all people equal protection under the law, meaning that states cannot unreasonably discriminate between persons who are similarly situated.

The use of a classification of development, resulting in different treatment for each group, does not necessarily result in a violation of the equal protection clause of the United States Constitution. Equal protection does not require that all persons be dealt with identically, but it does require that a distinction made have some relevance to the purpose for which the classification is made. Unless a case involves a "suspect classification," which includes treating groups of people differently based on race, national origin, religion, or alienage, the law merely requires that classifications be rationally related to legitimate governmental purposes.

When an ordinance does not expressly use classifications for the purposes for imposing exactions on developers, the ordinance may still be subject to an equal protection challenge if the ordinance is discriminatory in its application.

In most cases, it is difficult to successfully challenge a zoning ordinance on equal protection grounds because the ordinance only needs to be rationally related to legitimate government purpose and the challenger must rebut a presumption that the ordinance (a legislative act) is constitutional and valid.

Violations of the 5th Amendment—Impact Fees as Unconstitutional Exactions

The Fifth Amendment to the U.S. Constitution requires that private property shall not be taken for public use without just compensation. Traditionally, a taking occurs when the government physically invades private property or requires the dedication of a piece of property to the state. Second, a government *regulation*, as opposed to a physical intrusion, can also be a basis for a takings lawsuit. Finally, the U.S. Supreme Court has also recognized that the Fifth Amendment is implicated when the government places conditions on a development applicant in return for a development permit (i.e. exactions). Unfortunately, the Supreme Court's jurisprudence is limited to cases where the government has conditioned a development approval on a case-by-case (also called *ad hoc)* basis, and it is an open question as to whether legislatively-imposed impact fees are subject to the same analysis. Nevertheless, NAHB consistently argues that legislatively-imposed exactions and *ad hoc* exactions must both meet the same constitutional requirements. Specifically, NAHB argues that the Court's decisions in *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987) and *Dolan v. City of Tigard*, 512 U.S. 374 (1994) instruct municipalities regarding the appropriate level of and purposes for the exaction.

In *Nollan*, the Court explained that *there must be an "essential nexus" between the development condition and the anticipated impacts of the development. Without this connection, the condition could result in a violation of the Fifth Amendment.*

In *Dolan*, the Court discussed what constitutes a reasonable level of a development condition. The Court held that *development conditions must bear a "rough proportionality" to the development's impact on existing infrastructure.* In order to meet this proportionality requirement, municipalities must make an individualized determination that the impact of proposed development warrants the exaction. "No precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development." *Dolan* at 391.

Where a condition of development approval is not in proportion with the development's anticipated impact, the *Dolan* rough proportionality test is not met and the government has violated the Fifth Amendment. This violation occurs regardless of whether the imposition by the government is for a dedication of land or for a monetary payment. *Koontz v. St. Johns River Water Management District,* 133 S.Ct. 2586 (2013).

Several courts have directly applied the heightened scrutiny standard in *Nollan* and *Dolan* to impact fees.[6] The California Supreme Court, for example, stated that a municipality must account for the actual impact of a proposed development, as well as any relative benefit the project will contribute, before imposing a fee. *Ehrlich v. City of Culver City*, 911 P.2d 429 (Cal. 1996).

Other courts have refused to extend this standard to monetary conditions like impact fees.[7] Courts in this camp frequently distinguish *Nollan* and *Dolan* from legislatively-imposed conditions. These courts usually explain that "the two-pronged heightened scrutiny that the Court adopted in *Dolan* was animated by the Court's particular concern with the sort of governmental leveraging that can arise in case-by case . . . imposition of development conditions." *Rogers Machinery, Inc. v. Washington County*, 45 P.3d 966 (Or. Ct. App. 2002). In other words, because impact fees apply generally to all developers, the heightened scrutiny test does not apply.

States with express enabling authority for impact fees usually include the standards for nexus and proportionality within the text of the statute itself.[8] *Otherwise, three general tests have emerged among the state courts to determine the constitutionality of impact fees (1) the reasonable relationship test, (2) the dual rational nexus test, and the (3) specifically and uniquely attributable test. These state tests stem from either state enabling statues or case law.*

The first test is the least restrictive, and only requires a reasonable relationship between the fee and the new development's impact on public facilities.[9] This test is the most favorable to government, as it is fairly easily satisfied.

The dual rational nexus test has two components, which both must be satisfied in order for an impact fee to be constitutional. First, the impact fee must be reasonably attributable to new development's impact on the municipality's infrastructure. Second, the funds from the fee must be used to benefit the new development itself.[10]

In *Upton v. Town of Hopkinton,* 945 A.2d 670 (N.H. 2008), the Supreme Court of New Hampshire recently explained the dual rational nexus test this way:

> *[A]n impact fee must be a proportional share of municipal capital improvement costs which is reasonably related to the capital needs created by the development, and to the benefits accruing to the development from the capital improvements financed by the fee.*

Resolution of the dual rational nexus test is dependent on the facts of each individual case. A court will analyze the methodology used to calculate a development's impact and whether capital improvements actually benefit the development that is required to pay the fee. If this methodology is sound, a court is likely to find the impact fee to be constitutional.[11]

The most restrictive test, and therefore the most favorable to development, is the specifically and uniquely attributable test. 'Specifically and uniquely attributable' means that a new development creates the need, or an identifiable portion of the need, for additional capacity to be provided by the required improvement or facility. Illinois is the author and primary user of the specifically and uniquely attributable test although a few states have applied it as well. *Pioneer Trust & Sav. Bank v. Village of Mt. Prospect,* 176 N.E.2d 799 (Ill. 1961). The principal challenge developers can bring against impact fees in these states is whether the new development is the sole cause of the allegedly needed capital facilities.

Standing

The party challenging an impact fee ordinance must have "standing" before bringing a claim in court. Essentially, this means that the party must have suffered a tangible injury as a result of the impact fee. For a builder or developer, this standing is based on payment of the fee. However, for an organization, such as a homebuilder's association, standing tends to occur more often.

Generally, an organization can have standing on behalf of its members if it meets the following requirements: "(1) [it] has suffered an 'injury in fact' that is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical; (2) the injury is fairly traceable to the challenged action of the defendant; and (3) it is likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." When the plaintiff is not the object of the government action, standing is not precluded, but it is "substantially more difficult" to establish. *Lujan v. Defenders of Wildlife,* 504 U.S. 555, 560-62, 112 S.Ct. 2130, 119 L.Ed.2d 351 (1992).

In the context of impact fees, courts will likely find that an organization has standing when one of its members has had to pay the fee. For example, in *Charleston Trident Home Builders, Inc. v. Town Council,* 632 S.E.2d 864 (S.C. 2006), the Supreme Court of South Carolina held that the home builders association had standing because there was evidence that its president had paid more than $100,000 worth of impact fees since the ordinance was enacted. *While it may be possible for an organization to establish standing for the future payment of impact fees, it will be difficult to establish that an injury is imminent and not speculative.*[12]

Organizations generally claim declaratory or injunctive relief, rather than monetary damages, because courts are unlikely to find that all members have suffered identical damages.

Endnotes

1. Dillon's rule is named for John Forrest Dillon, a 19th Century judge who determined that, under the 10th Amendment to the U.S. Constitution, local governments are mere political subdivisions of the state when exercising their powers.
2. *Durham Land Owners Ass'n v. County of Durham*, 630 S.E.2d 200 (N.C. Ct. App. 2006).
3. *See, e.g. McCarthy v. City of Leawood, 894* P.2d 836 (Kan. 1995); *HBA of Dayton & Miami Valley v. City of Beavercreek*, 729 N.E.2d 349 (Ohio 2000).
4. *See, e.g. Twin City Fire Ins. Co. v. City of Madison*, 309 F.3d 901 (5th Cir. 2002).
5. *Eastern Diversified Properties, Inc. v. Montgomery County*, 570 A.2d 850 (Md. 1990); *Home Builders Ass'n of Greater Des Moines v. City of West Des-Moines*, 644 N.W.2d 339 (Iowa 2002).
6. *N. Ill. Home Builders Ass'n v. County of Dupage*, 649 N.E.2d 384 (Ill. 1995); *Town of Flower Mound v. Stafford Estates Ltd. P'ship*, 135 S.W.3d 620 (Tex. 2004); *Benchmark Land Co. v. City of Battle Ground*, 14 P.3d 172 (Wash. Ct. App. 2000).
7. *San Remo Hotel L.P. v. S.F. City & County*, 364 F.3d 1088 (9th Cir. 2004); *Clajon Prod. Corp. v. Petera*, 70 F.3d 1566 (10th Cir. 1995); *Home Builders Ass'n of Cent. Ariz. v. City of Scottsdale*, 930 P.2d 993 (Ariz. 1997); *Krupp v. Breckenridge Sanitation Dist.*, 19 P.3d 687 (Colo. 2001); *McCarthy v. City of Leawood*, 894 P.2d 836 (Kan. 1995); *Waters Landing Ltd.P'ship v. Montgomery County*, 650 A.2d 712 (Md. 1994).
8. *See, e.g.* Ariz. Rev. Stat. § 9-463.05; Ark. Code Ann. § 14-56-103; Me. Rev. Stat. Ann. tit 30-A § 4354; Mont. Code Ann. § 7-6-1601 – 1604.
9. Cal. Gov't Code § 66001 (B) (2007).
10. *Banberry Dev. Corp. v. South Jordan City*, 631 P.2d 899 (Utah 1981);
11. *HBA of Dayton & Miami Valley v. City of Beavercreek*, 729 N.E.2d 349 (Ohio 2000).
12. *Newton County Home Builders Ass'n v. Newton County*, 648 S.E.2d 420 (Ga. Ct. App. 2007).

CHAPTER 3

Economic Implications of Impact Fees

- ***Introduction***
- ***Who Ultimately Pays an Impact Fee?***
- ***Implications of Higher House Prices***
- ***Are Impact Fees Really Necessary?***
- ***Conclusion***

Impact fees on new residential development are a form of market intervention. In the absence of an intervention, the economic forces of supply and demand will bring about an unconstrained outcome to the interactions among consumers and producers of housing, and the suppliers of inputs (such as land, labor, building materials, and the entrepreneurial skill to consummate the process) utilized to build the housing. Impact fees unquestionably change the outcome. The questions remain: In what ways do impact fees affect the economic forces of supply and demand and by how much.

Part of the unconstrained outcome of supply and demand within a local housing market is a set of pricing components for new housing units and each of the inputs that comprise the building of a home. Such pricing components may include, but not be limited to: land, labor, building materials and profit. In this framework, profit is considered a price paid to developers to induce them to risk capital and apply entrepreneurial skill to residential development projects. The imposition of an impact fee influences at least one of these prices. If the pricing components for a project remain unchanged, and an impact fee is imposed, the price of housing increases. In short, someone has to pay the fee. Chapter 3 explains why, in the typical case, pricing components are unlikely to decrease, meaning the home buyer is ultimately the party who pays the impact fee.

Chapter 3 also demonstrates that the imposition of impact fees may cause home prices to increase by more than the amount of the impact fee. Such a scenario occurs primarily because development costs, such as financing charges and broker commissions, are often calculated as a percentage of other costs. To illustrate the effect that impact fees passed on to home buyers may have on housing affordability, the number of households "priced out" of the market as a result of the impact fee is described and estimated. For purposes of the chapter, priced out is defined as households able to qualify for a mortgage on a median-priced home prior to the imposition of the impact fee, but not afterward.

This leads naturally to the question of whether or not impact fees are really necessary. Chapter 3 demonstrates that, given existing fees and taxes within a typical metropolitan area, the economic activity generated and supported by home building may, after some

time, result in enough additional local government revenue to cover current expenses plus the cost of providing infrastructure. In this sense, new housing can be said to pay for itself.

Who Ultimately Pays an Impact Fee?

From the perspective that developers and home builders are the ones that provide the cash outlay for impact fees, it may be said that they pay the impact fees. However, similar to any tax or other costs imposed on businesses, the ultimate burden of payment will, to varying degrees, be passed to new home buyers in the form of higher house prices[1] (or, equivalently, smaller houses with fewer amenities), or come from suppliers of products and services utilized to build and deliver the home in the form of lower prices paid for those products and services.

To put this argument in perspective, Figure 3.1 identifies the components that comprise the price of a typical single family home.

Figure 3.1 Sale Price Breakdown
For an Average Single-Family Home in 2013

Average Lot Size: 14,359 sq. ft.
Average Finished Area: 2,607 sq. ft.

Description	Average	Share of Price
Finished Lot Cost (including financing cost)	$74,509	18.60%
Total Construction Cost	$246,453	61.70%
Financing Cost	$5,479	1.40%
Overhead and General Expenses	$17,340	4.30%
Marketing Cost	$4,260	1.10%
Sales Commission	$14,235	3.60%
Profit	$37,255	9.30%
Total Sales Price	$399,532	100%

The cost of an impact fee is fully passed on to the home buyer, unless any of the seven line items in Figure 3.1 are reduced. Theoretically, it is possible that the ultimate effect of impact fees is to reduce demand for these inputs and drive down the price of the items. The question is how likely this is to happen in practice for a particular item.

Impact fees, building permit fees, and water and sewer fees fall within the total construction cost figure. In most cases, permit and other fees imposed by local governments on new construction, will most likely not decrease over time as reason for imposing a fee on the construction of a home is to raise revenue, it makes little sense for the local jurisdiction to simultaneously relinquish that revenue through a concomitant reduction in fees on the same home.

In order for a reduction in the cost of labor per home to occur, wage rates for local construction workers must decline. For a significant wage decline to occur in response to an impact fee on new residential construction, new residential construction within the jurisdiction must account for a large proportion of the demand for local construction labor and construction workers building the homes must have relatively few opportunities for work on new residential construction in neighboring jurisdictions, on non-residential new construction, or on remodeling.

If a residential impact fee is imposed across all jurisdictions in a market area, including potential development sites on the fringes, it, by definition, removes the option for local workers to construct new homes that are not subject to the impact fee. On the other hand, to the extent that such a broadly imposed fee inhibits new construction, it could be discerned that the replacement of existing structures would be delayed, which may result in an increase in the demand for remodeling work.

A similar argument applies to overhead and general expenses. New home construction typically represents a minor part of a local economy that a change in impact fees would not change demand enough to generate noticeable declines in prices paid for general overhead expenses. In the short run, if impact fees inhibit new construction, the effect may be to increase overhead costs per unit, as overhead would then need to be allocated across fewer units of production.

It seems even more obvious that conditions in a single local market will have no significant impact on the cost of building materials. Markets for building materials are regional, if not national and may even be international, in scope. The effect of one local market on demand for building materials is typically negligible and imposing a fee on construction in one jurisdiction will not generally result in the builders paying less for lumber, wall board, or other building products.

Credit markets are also national or international in scope, making it difficult for local action to have an effect on financing costs. Locally imposed impact fees will not reduce the interest rates or improve the terms builders and developers can obtain on acquisition, development, and construction loans.

At first, it may seem reasonable to assume that, because the builders and developers write the checks, the impact fee is deducted from the profit. Such a scenario would not be true in a competitive market, however, as profits to home building must remain competitive with home building in nearby areas and returns available in other, similar industries with a corresponding level of risk. Otherwise, builders would be better off constructing homes elsewhere, pursuing a different business, or investing resources in alternative investment options. In short, a competitive rate of return is required in order to keep local builders in business in the long run.

Home building is widely recognized as a competitive industry. According to a 2003 monograph by the American Real Estate and Urban Economics Association, “In the United States, as in most countries, the market for housing services per se can be

approximated by a competitive market… Few landlords or developers are large enough to exert significant market power."[2]

A competitive housing market is defined as large numbers of consumers and producers acting independently to make market decisions. The firms in the market are competing against one another, and there are no barriers to entry: whenever firms are earning excess profits, these are competed away by other firms who enter the industry, increase supply, and compete away the excess.

The most complicated item to analyze is the raw land cost. It is conceivable that an impact fee imposed on local construction to some extent inhibits demand for raw land and places downward pressure on the price. The extent to which this happens depends on local housing market conditions, other local land use policies—including policies of other local governments in the surrounding area—and the time frame being considered.

If impact fees are imposed in one jurisdiction but land is readily available in a surrounding market area that does not impose impact fees, builders may choose not to purchase land in the jurisdiction that imposes the fee unless owners of land within the jurisdiction are willing to take a reduction in price that fully compensates for the fee.

However, there are realistic scenarios under which land in surrounding jurisdictions may not be readily available. One scenario may be that surrounding jurisdictions are unwilling to change zoning or accelerate approval of residential building permits to accommodate construction activity that would otherwise spill over into their areas from the jurisdiction imposing the impact fee.

Even if home building is largely confined to the area over which the fee is imposed or land is already owned by builders, the willingness of land owners to sell at a lower price depends upon economic conditions and other land use policies within that jurisdiction. If other profitable uses for the land are available, and local jurisdictions readily change zoning to allow land to be utilized for those purposes, the owner of the land has no reason to accept a lower price for a residential use. Notwithstanding current zoning restrictions, the owner may be unwilling to sell land at a price that offsets the impact fee, if he or she reasonably expects zoning restrictions to change in the future.

Given the local nature of land use decisions, the types of restrictions often imposed, and the role of expectations, a reasonable working assumption is that nationwide residential developers will have difficulty passing impact fees to land owners in the form of lower land prices, and will therefore tend to pass them on instead to home buyers in the form of higher house prices.

From the perspective of new home buyers, the price of the home to the buyer may increase by more than the impact fee amount. One may ask, how can this scenario be possible? Payment of an impact fee typically occurs during development. An impact fee paid early in the production process has associated carrying costs and can substantially increase the costs builders and developers pay. In a typical case, NAHB

estimates that total developer and builder costs will increase by 137 percent of the impact fee.

NAHB research shows that, on average, regulations imposed by government at all level account for 25 percent of the final price of a new single family home built for sale[1]. Every time a local or regional government raises construction costs by, for example, increasing the price of construction permits or impact fees, the cost of building a house rises. In fact, the final price of the home to the buyers will usually go up by more than the increase in the government fee. This is because each time construction costs increase other costs such as commissions and financing charges automatically rise as well. As a result, most cost increases are passed on to the buyers with additional charges. The size of these charges depends both on the type of fee/cost increase and when it is imposed in the development/construction process. NAHB estimates that the add-on charges range from 0 percent if a fee is imposed directly on buyers to 39 percent if cost is incurred when applying for site development approval (see Figure 3.2). So that for every $1 increase in fees incurred, for example, when acquiring a building permit, the final price of a new home to its final customer rises by $1.20. Alternatively, every $833 increase in fees imposed at the time of the building permit results in a $1,000 increase in house prices.

Figure 3.2 Impact Fee Effect on Sale Price

Description	Time (months)
Length of time:	
Permit to Start	0.8
Start to Construction Completion	6.2
Construction Completion to Home Sale	4.8
Total	**11.8**

Building Costs/Fees	Add-on Charges
Imposed directly on buyer	0%
During construction	16%
At start of construction	18%
When building permit acquired	20%
During development	37%
When applying for site development approval	39%

The bottom line is that a $1,000 impact fee imposed at the time of development approval will typically increase the costs to builders and developers to at least $1,390. Most if not all of the price increase is likely to be passed on to home buyers. In some cases, depending on particular local conditions, the price increase may be partially

[1] See P. Emrath "How Government Regulation Affects the Price of a New Home", Housing Economics Online, July 2011

offset by falling land prices. In rare circumstances, depending on local conditions, the price increase may be partially offset by declining wages for construction workers.

Impact fees on rental housing units would have similar effects on prospective tenants. Impact fees would tend to increase rents in new units to cover higher development costs.

Implications of Higher House Prices [5]

When an impact fee is passed to the buyer, what are the implications? Obviously, one is an adverse effect on housing affordability. One way to illustrate the potential extent of the adverse effect is to apply national mortgage underwriting standards to estimate the households that qualified for a mortgage before a house price increase, but no longer qualify for a mortgage afterwards. Households that no longer qualify for a mortgage following the price increase are referred to as being "priced out" of the market for the home.

Applying this approach to the U.S. as a whole reveals that in 2014—utilizing typical assumptions about the mortgage, down payment, property taxes and property insurance, a $1,000 impact fee which increases the price of a median-priced new home by $1,370, prices out about 282,588 households as illustrated below in Figure 3.3.

Figure 3.3 US Households Priced Out of the Market by Impact Fees, 2014

Description	Mortgage Rate	House Price	Monthly Mortgage Payment	Taxes and Insurance	Minimum Income Needed	Households That Can Afford House
Without Fee	4.50%	$275,000	$1,321	$391	$73,382	41,959,112
With Fee	4.50%	$276,370	$1,328	$393	$73,748	41,676,524
Difference		**$ 1,37**	**$ 7**	**$ 2**	**$ 366**	**- 282,588**

* Calculations assume a 10% down payment and a 45 basis point fee for private mortgage insurance. A Household Qualifies for a Mortgage if Mortgage Payments, Taxes, and Insurance are 28% of Income.

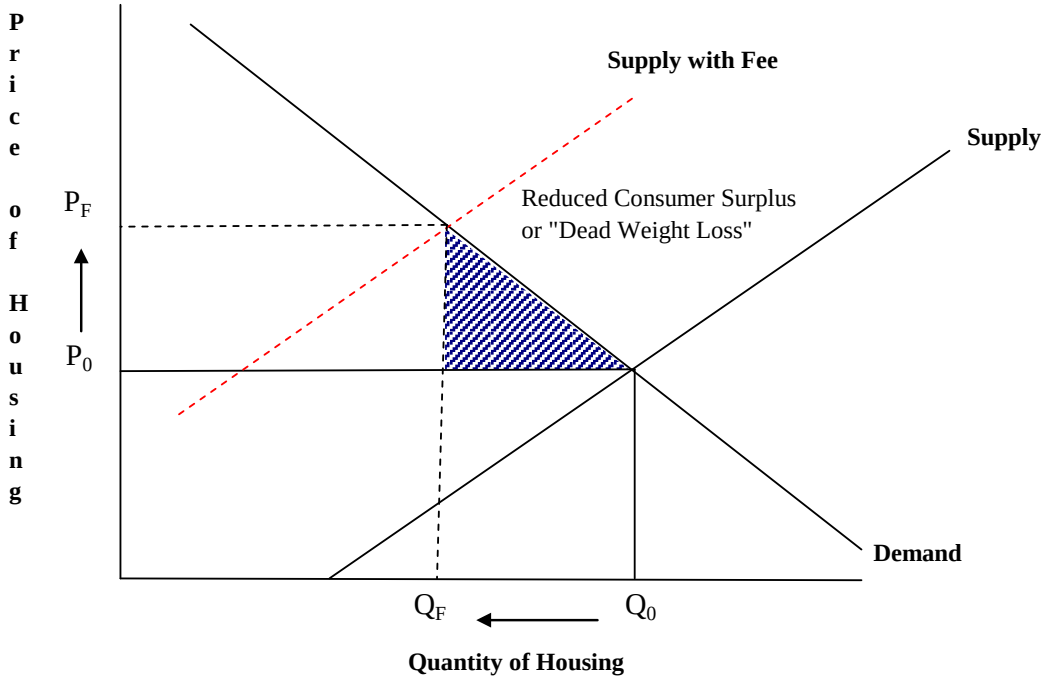
The priced-out calculation requires an income distribution as illustrated in Figure 3.3, and assumptions about mortgages, property taxes and property insurance. The income distribution, taxes and insurance rates are based largely on data from the Census Bureau's American Community Survey (ACS). Given appropriate information about housing prices, income distributions, taxes and insurance rates, it's possible to apply the priced-out analysis to local housing markets.

NAHB estimated new house prices for 357 Metropolitan Statistical Areas (MSAs).[6] Household income distributions, as well as information about real estate taxes and insurance, are available for MSAs from the ACS.[7] The priced-out analysis based on these data for 357 MSAs are illustrated in Exhibit A located at the end of this chapter.

The number of households priced out of the market by a $1,000 impact fee (resulting in a $1,370 price increase) ranges from a low of 19 in the Napa, CA, MSA and 30 in the Carson City, NV, MSA, to a high of 5,742 in the New York, Northern New Jersey, Long Island NY-NJ MSA. The MSA with second largest number of priced-out households is the Chicago, Joliet, Naperville IL-IN-WI MSA, with 5,325 households priced out as the result of the imposition of an impact fee.

The priced-out results do not provide a specific answer to the extent of the impact on new construction (that would require a complicated economic model that includes estimates of the willingness of households to buy smaller houses, older houses, or houses with fewer amenities; interrelationships between different segments of the local housing market; and adjustments made by home builders and surrounding local governments). It is possible, however, to indicate the general effects impact fees have on new construction on a graph of supply and demand in a local housing market as illustrated in Figure 3.4 below.

Figure 3.4 Supply and Demand in a Local Housing Market



The imposition of an impact fee translates into an increase in the cost to produce a home. On Figure 3.4, the imposition of an impact fee is equivalent to shifting the supply curve up and to the left. The effect of the impact fee on consumers of new homes is thus some combination of a price increase and reduction in quantity of housing produced.

The area below the demand curve but above the market price is called a “consumer surplus,” because all consumers pay the same, market-clearing price for housing although many of them may be willing to pay more. When the imposition of an impact fee shifts the supply curve, the consumer surplus is reduced. Consumers are made worse off because they are both consuming less housing and paying a higher price for housing. The lost surplus is called a “dead weight loss” and is illustrated as the area of the shaded triangle in Figure 3.4.

Note that, although local builders maintain a normal profit margin in this scenario, total profits are reduced, as the same per unit profit margin is earned on fewer units of production.

Existing homes in the area will also be affected by this scenario, because they are substitutes for new housing. As impact fees raise the prices of new homes and prospective buyers view existing homes as an alternative, upward pressure is placed on the prices of existing homes. Empirical research supports the argument that impact fees raise the price of existing homes as well as new homes.[8] This research finds that existing homes are relatively close substitutes for new homes in particular impact-fee-imposing jurisdictions.

Similarly, prospective renters are likely to consider existing rental units as substitutes for new rental units, placing upward pressure on rental rates for existing housing. The combination of rising prices for existing homes and rental rates in existing rental units results in "windfall" gains to current owners of housing units. The opposite is true for current tenants in existing rental units as they are doubly squeezed by impact fees. The ability of current tenants to purchase a home or move to a newer rental unit is hampered by higher housing prices and tenants may be forced to pay higher rents for their current residence.

To the extent that impact fees raise the price of all homes in a given community, the affordability of housing in that area is reduced. A reduction in housing affordability will have a negative effect on attracting and retaining workers and will have a direct impact on local governments as police officers, firefighters, teachers, and other public sector workers are heavily impacted when home prices rise. In addition, the shortage of affordable housing will make it difficult for the community to retain its own sons and daughters as they leave their parents' homes and look for affordable first homes of their own.

Are Impact Fees Really Necessary?

The premise underlying the use of impact fees is that development, especially residential development, does not pay for its fair share of the burden imposed upon the local government as new development requires the expansion of public infrastructure as well as the hiring of additional public sector workers.

NAHB has developed a model to estimate the costs to local governments for the additional public infrastructure and public sector workers that are attributable to new growth. Detail on the methodology is available in the report *The Local Impact of Home Building in a Typical Metropolitan Area: Comparing Costs to Revenues for Local Governments*: http://www.nahb.org/fileUpload_details.aspx?contentTypeID=3&contentID=35601&subContentID=119792.

The general approach of the model is to assume local jurisdictions supply residents of new homes with the same levels of services that they currently provide, on average, to occupants of existing structures. The amount spent by jurisdictions to provide public services is available to the public from the Census of Governments, where all units of government in the U.S. report line item expenses, revenues, and intergovernmental transfers once every five years to the Governments Division of the U.S. Census Bureau. The Census of Governments accounts can be aggregated for every local government in a typical metropolitan area and then used to estimate total annual expenses per 100 single family and 100 multifamily housing units.

Local taxes and government spending patterns vary considerably by jurisdiction across the U.S., so defining averages for a typical metropolitan area is not completely straightforward. The figures presented in Figure 3.5 were calculated by aggregating data from the majority of the roughly 88,000 local governments in the U.S. and scaling them to the number of housing units. Areas in which revenues collected by local jurisdictions exceed 15 percent of personal income were excluded in order to exclude extreme values from cases where significant local government activity exists without substantial housing markets (for example, mining communities).

Figure 3.5 Current Expenses for Local Governments per 100 Housing Units

Description	Single Family	Multifamily
Education	$ 142,000	$ 82,000
Police Protection	45,000	33,000
Fire Protection	20,000	15,000
Corrections	14,000	11,000
Streets and Highways	6,000	4,000
Water Supply	15,000	8,000
Sewerage	8,000	4,000
Health	19,000	14,000
Recreation and Culture	21,000	16,000
Other General Government	69,000	51,000
Electric Utilities	15,000	11,000
Gas Utilities	2,000	1,000
Public Transit	1,000	1,000
Other Government Functions	1,000	-
Total	**$ 378,000**	**$ 251,000**

Source: NAHB calculations based on data from the Census of Governments, U.S. Census Bureau.

In addition to current expenses, providing services to residents requires local governments to make capital expenditures for items such as schools and other buildings, equipment, roads, and other structures.

Estimating capital expenditures for schools, roads and other structures is more complicated than estimating current expenses. The process is to estimate a traditional economic model, where expenditures are a function of labor and capital, with state level data, for which information about the capital stock can be derived.[9] The results are then applied to the typical metropolitan area, where capital required per housing unit can be computed as a residual. The results for 100 single family and 100 multifamily housing units are illustrated in Figure 3.6.

Figure 3.6 Capital Needed by Local Governments to Support 100 Housing Units (in $ Thousand)

Description	Single Family	Multifamily
Schools	$ 759,000	$ 442,000
Hospitals	83,000	61,000
Other buildings	241,000	179,000
Highways & streets	150,000	104,000
Conservation & development	5,000	4,000
Sewer systems	189,000	99,000
Water supply	249,000	130,000
Other structures	241,000	179,000
Total	**$ 1,917,000**	**$ 1,198,000**

Source: results from NAHB "local impact of home building" model that estimates capital owned and maintained by local governments: http://www.nahb.org/fileUpload_details.aspx?contentTypeID=3&contentID=35601&subContentID=10018

If, in the estimation of local policy makers, the increase in property tax revenues generated by development would not be sufficient to cover the increases in debt service and other costs of providing public services, local governments may decide to impose impact fees on new growth in order to maintain property tax rates at the current level. Often omitted from policy makers' estimates are the long-term economic and fiscal benefits of growth.

NAHB has also developed a model to estimate the total economic benefits of home building. The model captures the effect of the construction activity itself (Phase I), the ripple impact that occurs when income earned from construction activity is spent and recycled in the local economy (Phase II) and the ongoing impact from new homes occupied by residents who pay taxes and purchase locally produced goods and services (Phase III). In order to accurately capture the positive impact residential construction has on a community, it’s important to include the ripple effects and the ongoing benefits.

In each phase, the expanded economic activity results in additional revenue for local governments in the area. In Phase I, even without impact fees, local government

revenue is generated by local sales taxes on materials, and a variety of other taxes and fees paid by the local businesses that participate in the process of building, marketing, and selling the home. In Phase II, as the income earned in Phase I is spent, local government revenue is generated by sales taxes, other taxes and fees paid by local consumers and businesses resulting from the expanded economic activity, and revenue for government-owned utilities and other local government enterprises. In Phase III, the residents of the new homes spend money locally and generate taxes, fees, and revenue for local government much as in Phase II—with the exception that the revenue is recurring, and also includes the increase in local property taxes that normally results from the development of residential properties.

Results of the revenue generated in each phase for a typical metropolitan area can be found in the report *The Local Impact of Home Building in a Typical Metropolitan Area: Income, Jobs, and Taxes Generated*: http://www.nahb.org/fileUpload_details.aspx?contentTypeID=3&contentID=35601&subContentID=28002.[10] Results in the report assume an average impact fee (broadly defined to include permits, hook-up charges, etc.) of $7,008 per single family and $2,762 per multifamily housing unit.

In order to judge whether or not impact fees are necessary, the results are recalculated under the alternative assumption that home builders and developers pay **no impact or other fees of any kind to local governments.** These results are summarized in Figure 3.7.

Figure 3.7 Revenue Generated for Local Governments per 100 Housing Units

	One-Time Effect				Ongoing, Annual	
	Phase I		Phase II		Phase III	
Description	**Single Family**	**Multi- Family**	**Single Family**	**Multi- Family**	**Single Family**	**Multi- Family**
Business Property Taxes	$ 163,000	$ 54,000	$ 140,000	$ 61,000	$ 90,000	$ 100,000
Residential Property Taxes	-	-	-	-	270,000	107,000
General Sales Taxes	125,000	46,000	45,000	20,000	29,000	32,000
Specific Excise Taxes	22,000	7,000	19,000	8,000	12,000	14,000
Income Taxes	23,000	10,000	12,000	5,000	8,000	8,000
Licenses Taxes	1,000	1,000	1,000	-	1,000	1,000
Other Taxes	21,000	7,000	18,000	8,000	11,000	13,000
Residential Permit/Impact Fees	-	-	-	-	-	-
Utilities & Other Govt. Enterprises	88,000	38,000	106,000	46,000	134,000	97,000
Hospital Charges	45,000	20,000	20,000	9,000	42,000	40,000
Transportation Charges	19,000	8,000	9,000	4,000	6,000	6,000
Education Charges	20,000	9,000	9,000	4,000	6,000	6,000
Other Fees and Charges	86,000	32,000	57,000	25,000	39,000	37,000
Total	**$ 613,000**	**$ 232,000**	**$ 436,000**	**$ 190,000**	**$ 648,000**	**$ 461,000**

Source: results from NAHB "local impact of home building" model that estimates the economic benefits of new construction. Technical documentation available from the NAHB Housing Policy Department.

The next issue to address is whether the generated revenues are sufficient to cover all costs listed in Figures 3.5 and 3.6, employing several conservative assumptions to avoid understating costs. For example, it is assumed that demand for public capital facilities generated by the new housing units cannot be met through current excess capacity. Instead, local governments invest in new structures and equipment at the start of the first year, prior to the construction of any homes. To the extent that neither assumption

is true, interest costs would be somewhat lower than reported in the following discussion.

To compare the streams of revenues and expenditures over time, it is assumed that half of the current expenses and half of the ongoing, annual revenues are realized in the first year. This would be the case if construction and occupancy took place at an even rate throughout the year.

The difference between revenues and current expenses in a given year is an operating surplus. At the beginning of the first year, capital investment is financed through debt by borrowing at the current municipal bond interest rate, with the interest accruing throughout the year. Each year following the first year, the operating surplus is first utilized to pay the interest on the debt, then to pay off the debt at the end of the year. Results are illustrated for the 100 single family homes in Figure 3.8 and 100 multifamily units in Figure 3.9.

Figure 3.8 Costs and Revenue for Local Governments Generated by 100 Single Family Units in a Typical Metropolitan Area With No Impact Fees

Year	Current Expenses	Revenue	Operating Surplus	Capital Investment Start of Year	Debt Outstanding End of Year	Interest on Debt	Net Income
1	$ 189,000	$ 1,372,681	$ 1,183,681	$ 1,917,000	$ 820,824	$ 87,505	$ (820,824)
2	378,000	647,748	269,748	-	588,545	37,468	232,280
3	378,000	647,748	269,748	-	345,662	26,865	242,883
4	378,000	647,748	269,748	-	91,692	15,778	253,970
5	378,000	647,748	269,748	-	-	4,185	265,563
6	378,000	647,748	269,748	-	-	-	269,748
7	378,000	647,748	269,748	-	-	-	269,748
8	378,000	647,748	269,748	-	-	-	269,748
9	378,000	647,748	269,748	-	-	-	269,748
10	378,000	647,748	269,748	-	-	-	269,748
11	378,000	647,748	269,748	19,000	-	-	250,748
12	378,000	647,748	269,748	-	-	-	269,748
13	378,000	647,748	269,748	-	-	-	269,748
14	378,000	647,748	269,748	-	-	-	269,748
15	378,000	647,748	269,748	-	-	-	269,748

Source: results from NAHB "local impact of home building" models.

Figure 3.9 Costs and Revenue for Local Governments Generated by 100 Multifamily Housing Units in a Typical Metropolitan Area With No Impact Fees

Year	Current Expenses	Revenue	Operating Surplus	Capital Investment Start of Year	Debt Outstanding End of Year	Interest on Debt	Net Income
1	$ 125,500	$ 652,645	$ 527,145	$ 1,198,000	$ 725,540	$ 54,685	$ (725,540)
2	251,000	460,846	209,846	-	548,813	33,119	176,728
3	251,000	460,846	209,846	-	364,018	25,052	184,795
4	251,000	460,846	209,846	-	170,788	16,616	193,230
5	251,000	460,846	209,846	-	-	7,796	202,050
6	251,000	460,846	209,846	-	-	-	209,846
7	251,000	460,846	209,846	-	-	-	209,846
8	251,000	460,846	209,846	-	-	-	209,846
9	251,000	460,846	209,846	-	-	-	209,846
10	251,000	460,846	209,846	-	-	-	209,846
11	251,000	460,846	209,846	14,000	-	-	195,846
12	251,000	460,846	209,846	-	-	-	209,846
13	251,000	460,846	209,846	-	-	-	209,846
14	251,000	460,846	209,846	-	-	-	209,846
15	251,000	460,846	209,846	-	-	-	209,846

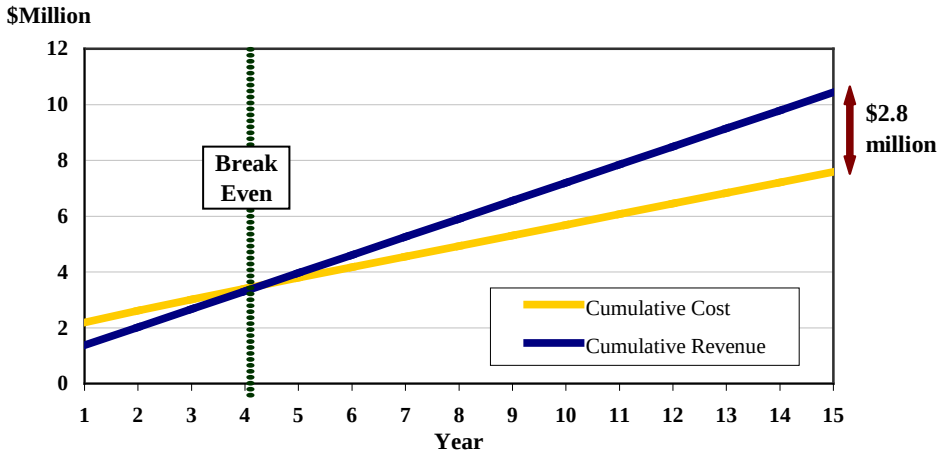
Source: results from NAHB "local impact of home building" models.

As Figure 3.8 illustrates, in the first year without the imposition of impact fees, 100 average single family homes constructed in the typical metropolitan area, generate an estimated $1.4 million in tax and other revenue for local governments. 100 average single-family homes also generate $189,000 in current expenditures to the local government for providing public services to the net new households at current levels, and $1.9 million in capital investment for new infrastructure and equipment necessary to serve the needs of new residents. The analysis assumes that local governments finance the capital investment by borrowing at the current municipal bond rate.

In a typical year after the first, the 100 single-family homes result in $648,000 in recurring tax and other revenue for local governments, and $378,000 in local government expenditures needed to continue providing services at current levels.

After 15 years, the homes will generate a cumulative $10.4 million in revenue for local governments compared to only $7.6 million in expenditures, including annual current expenses, capital investment, and interest on debt as illustrated in Figure 3.10.

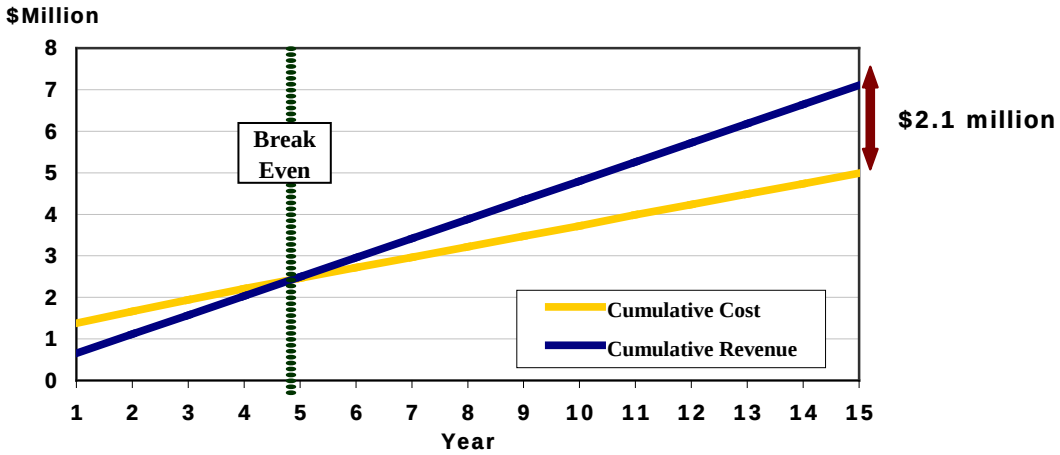
Figure 3.10. Costs Compared to Revenue: 100 Single Family Homes with No Impact Fees



Similarly, in the first year without the use of impact fees, 100 average multifamily housing units constructed in a typical metropolitan area, generate an estimated $653,000 in taxes and other revenue for local governments while requiring approximately $126,000 in current expenditures for local governments to provide public services at current levels to the net new households, and $1.2 million in capital investment for new structures and equipment necessary to serve the needs of new residents. Again, it was assumed that local governments finance the capital investment by borrowing at the current municipal bond rate.

In a typical year after the first, the 100 multifamily housing units result in an additional $461,000 in tax and other revenue for local governments, and $251,000 in local government expenditures needed to continue providing services at current levels. After 15 years, the homes will generate a cumulative $7.1 million in revenue compared to $5.0 million in costs (Figure 3.11).

Figure 3.11 Costs Compared to Revenue: 100 Multifamily Units with No Impact Fees



In *The Local Impact of Home Building in a Typical Metropolitan Area: Income, Jobs, and Taxes Generated*, NAHB showed that, in an average revenue structure (including average impact fees), an average single family house will pay for itself (from the standpoint of local governments in the area) in four years, and an average multifamily housing unit will pay for itself in approximately five years.

Figures 3.10 and 3.11 illustrate that, impact and other construction-related fees are eliminated, the revenues attributable to new growth that remain from Figure 3.7 are sufficient enough for the average single-family and multifamily housing units to pay for themselves within a five-year timeframe. After a breakeven point at approximately five (5) years, the average single-family and multifamily unit begins generating excess revenue that local governments may use to reduce taxes or finance other projects, including the expansion of services to other residents in the area.

Many revenue items in Figure 3.7 result from general expansion of the local economy of a metropolitan area and cannot be assigned with certainty to a particular jurisdiction. This creates fiscal challenges, as many costs (such as those associated with primary and secondary education) are borne entirely by the jurisdiction in which a home is constructed. However, if each jurisdiction ignores the economics of the broader housing and labor market in which it is situated, and considers only revenues that can be documented with certainty when making decisions regarding impact fee policies or other measures with the potential to restrict the supply of housing, the result will be a general shortage of housing that will stifle business growth and create housing affordability problems. The purpose of this chapter was not to trivialize the significant fiscal challenges many local jurisdictions face, but to document the net economic benefits jurisdictions in a market area may realize if they allow an adequate supply of housing to be constructed.

Conclusion

The information presented in this chapter has illustrated how a $1,000 impact fee will typically be passed to the ultimate buyer of the home; how the buyer often ends up paying more than $1,000 extra for the home; and how the increase in the price of the home will create housing affordability issues by reducing consumption of housing in addition to increasing prices for the housing buyers do consume.

Moreover, given the tax and fee structures that prevail throughout the United States, the expanded economic activity resulting from residential construction generates considerable revenue for local governments in the area. In the typical case, after the initial five (5) year period following construction, revenues from various sources, excluding impact fees (or permit, or hook-up, or other construction-related), are adequate to extend existing level of public services the new residences.

Endnotes

1. Higher prices include the case of a house that may sell for the same price but is smaller, on smaller lot, or includes fewer amenities. In this case the buyer may be paying the same price but getting less housing in return, an effective price increase. For simplicity, this chapter describes primarily the case where the characteristics of the house remain constant while the price changes.
2. Richard Greene and Stephen Malpezzi. A Primer on U.S. Housing Markets and Housing Policy. AREUEA Monograph Series No. 3, The Urban Institute Press, Washington (2003). Richard Greene is currently Associate Dean for Graduate Programs and Oliver T. Carr, Jr. Chair of Real Estate Finance at George Washington University. Stephen Malpezzi is Professor, and Lorin and Marjorie Tiefenthaler Distinguished Chair in Real Estate at the University of Wisconsin-Madison.
3. U.S Census Bureau. Houses Sold and for Sale by Stage of Construction and Median Number of Months on Sales Market: http://www.census.gov/const/stageann.pdf, and Length of Time for New Residential Construction: http://www.census.gov/const/www/lengthoftimeindex.html.
4. NAHB, 2006 Cost of Doing Business Study.
5. A substantial portion of the material in this section is adapted from "Metro Area House Prices and Affordability" by Elliot Eisenberg in Housing Economics, July 2007. http://www.nahb.org/generic.aspx?sectionID=734&genericContentID=79606&channelID=311
6. "New Home Prices by State and Metro Areas" by Paul Emrath and Helen Fei Liu in Housing Economics, June 2007: http://www.nahb.org/generic.aspx?sectionID=734&genericContentID=78655&channelID=311
7. "Residential Real Estate Tax Rates in the American Community Survey" by Natalia Siniavskaia in Housing Economics, May 2007: http://www.nahb.org/generic.aspx?sectionID=734&genericContentID=76984&channelID=311
8. See for example "An Empirical Examination of the Effect of Impact Fees on the Housing Market," by Larry D. Singell and Jane H. Lilleydahl in Land Economics, February 1990; "Pricing Implications of Development Exactions on the Existing Housing Stock," by Charles Delaney and Marc Smith in Growth and Change, Fall 1989; or "Do Impact Fees Raise the Price of Existing Housing" by Shishir Mathur in Housing Policy Debate, 2007 (Issue 4).
9. The procedure is explained in detail in the technical appendix to The Local Impact of Home Building in a Typical Metropolitan Area: Comparing Costs to Revenues for Local Governments.
10. Details of the model used to estimate the results are available in NAHB's Local Impact of Home Building Model: Technical Appendix. The document is too large to be downloaded over the internet but can be obtained by contacting NAHB's Housing Policy Department.

Exhibit A

NATIONAL ASSOCIATION OF HOME BUILDERS
Households Priced Out of the Market by a $1,000 Price Increase, 2014

Metropolitan Statistical Area	Median New Home Price	Income Needed to Qualify	Households		
			All	Percent that Can Afford	Priced Out
Abilene, TX MSA	240,384	71,059	62,311	25%	144
Akron, OH MSA	269,153	75,822	293,691	29%	407
Albany, GA MSA	140,973	38,181	56,249	45%	160
Albany-Schenectady-Troy, NY MSA	401,105	117,214	336,867	19%	369
Albuquerque, NM MSA	225,407	57,214	344,294	43%	659
Alexandria, LA MSA	207,636	51,993	69,543	37%	178
Allentown-Bethlehem-Easton, PA-NJ MSA	307,829	87,794	318,081	29%	513
Altoona, PA MSA	349,984	92,322	48,629	17%	44
Amarillo, TX MSA	272,883	83,203	94,499	29%	142
Ames, IA MSA	284,375	78,675	37,083	30%	53
Anchorage, AK MSA	373,186	98,659	131,380	35%	192
Anderson, IN MSA	259,819	70,209	47,967	24%	105
Anderson, SC MSA	230,499	56,789	71,988	39%	110
Ann Arbor, MI MSA	270,400	78,181	143,994	41%	233
Anniston-Oxford, AL MSA	171,771	43,116	48,622	50%	117
Appleton, WI MSA	251,328	72,245	87,202	38%	212
Asheville, NC MSA	240,017	58,015	173,969	40%	333
Athens-Clarke County, GA MSA	228,491	58,608	70,685	35%	128
Atlanta-Sandy Springs-Marietta, GA MSA	221,742	56,955	1,980,222	48%	4,135
Atlantic City-Hammonton, NJ MSA	299,539	90,537	100,674	28%	136
Auburn-Opelika, AL MSA	314,741	78,066	54,042	25%	74
Augusta-Richmond County, GA-SC MSA	208,798	52,477	198,133	44%	407
Austin-Round Rock-San Marcos, TX MSA	232,454	69,043	667,355	45%	1,285
Bakersfield-Delano, CA MSA	241,976	62,459	258,396	40%	479
Baltimore-Towson, MD MSA	228,013	57,989	1,060,179	56%	2,014
Barnstable Town, MA MSA	616,381	151,432	80,879	11%	24
Baton Rouge, LA MSA	226,874	56,548	306,517	48%	530
Battle Creek, MI MSA	241,340	72,350	56,027	26%	114
Bay City, MI MSA	240,615	70,478	45,788	28%	79
Beaumont-Port Arthur, TX MSA	183,574	55,775	142,970	39%	349
Bellingham, WA MSA	293,969	72,746	77,203	35%	145
Bend, OR MSA	326,459	81,842	68,995	31%	101
Billings, MT MSA	247,752	63,972	67,882	35%	153
Binghamton, NY MSA	255,988	82,431	103,527	26%	164
Birmingham-Hoover, AL MSA	263,064	64,348	447,016	38%	681
Blacksburg-Christiansburg-Radford, VA MS	210,790	52,204	67,158	52%	141
Bloomington, IN MSA	205,783	51,066	77,320	42%	147
Bloomington-Normal, IL MSA	207,654	62,994	71,053	51%	172
Boise City-Nampa, ID MSA	269,591	66,056	239,837	33%	474
Boston-Cambridge-Quincy, MA-NH MSA	430,296	111,855	1,749,426	32%	1,829
Boulder, CO MSA	310,031	74,378	128,370	47%	191
Bowling Green, KY MSA	202,515	52,107	53,579	40%	93
Bremerton-Silverdale, WA MSA	293,074	74,090	90,100	41%	167
Bridgeport-Stamford-Norwalk, CT MSA	878,625	240,996	339,772	1%	186
Brownsville-Harlingen, TX MSA	116,704	35,831	126,119	47%	478
Brunswick, GA MSA	289,183	73,721	40,866	29%	59
Buffalo-Niagara Falls, NY MSA	395,105	128,302	469,199	10%	266

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Households Priced Out of the Market by a $1,000 Price Increase, 2014

Metropolitan Statistical Area	Median New Home Price	Income Needed to Qualify	Households		
			All	Percent that Can Afford	Priced Out
Burlington, NC MSA	155,202	38,966	56,995	54%	154
Canton-Massillon, OH MSA	220,267	60,406	165,387	35%	326
Cape Coral-Fort Myers, FL MSA	292,932	80,100	259,094	26%	279
Carson City, NV MSA	343,367	84,201	22,243	34%	30
Cedar Rapids, IA MSA	146,885	41,106	99,047	64%	218
Champaign-Urbana, IL MSA	254,760	76,429	93,065	29%	141
Charleston-North Charleston-Summerville, S	288,677	72,424	269,643	34%	491
Charlotte-Gastonia-Rock Hill, NC-SC MSA	243,499	62,366	683,782	43%	1,181
Charlottesville, VA MSA	262,901	63,558	78,144	51%	128
Chattanooga, TN-GA MSA	182,679	46,376	210,567	46%	510
Chicago-Joliet-Naperville, IL-IN-WI MSA	308,424	92,108	3,473,022	31%	5,325
Chico, CA MSA	274,636	67,806	89,007	31%	128
Cincinnati-Middletown, OH-KY-IN MSA	244,344	66,318	865,663	41%	1,623
Clarksville, TN-KY MSA	140,513	35,802	103,093	64%	306
Cleveland, TN MSA	159,148	39,165	49,234	56%	138
Cleveland-Elyria-Mentor, OH MSA	272,149	79,010	830,043	28%	1,103
Coeur d'Alene, ID MSA	250,758	60,527	55,100	37%	100
College Station-Bryan, TX MSA	192,998	56,025	88,453	36%	198
Columbia, MO MSA	214,130	54,865	76,589	42%	128
Columbia, SC MSA	213,026	52,771	291,253	44%	670
Columbus, GA-AL MSA	188,924	47,549	114,070	43%	247
Columbus, IN MSA	270,724	69,587	30,780	41%	66
Columbus, OH MSA	254,712	72,249	725,749	38%	1,452
Corpus Christi, TX MSA	192,237	59,548	163,365	38%	405
Dallas-Fort Worth-Arlington, TX MSA	289,824	89,627	2,412,714	31%	3,676
Dalton, GA MSA	168,738	42,291	48,593	40%	122
Danville, IL MSA	130,985	39,651	32,323	54%	106
Danville, VA MSA	167,278	41,519	49,204	42%	168
Davenport-Moline-Rock Island, IA-IL MSA	220,693	64,422	158,920	38%	363
Dayton, OH MSA	291,432	84,249	333,881	24%	411
Decatur, AL MSA	179,407	45,017	61,915	50%	106
Decatur, IL MSA	225,354	69,191	52,324	37%	109
Deltona-Daytona Beach-Ormond Beach, FL	357,650	96,058	213,555	15%	214
Denver-Aurora-Broomfield, CO MSA	306,315	74,688	1,049,652	42%	1,791
Des Moines-West Des Moines, IA MSA	269,083	76,308	245,972	40%	507
Detroit-Warren-Livonia, MI MSA	294,783	91,235	1,666,009	26%	2,434
Dothan, AL MSA	238,111	58,693	53,913	34%	93
Dover, DE MSA	158,002	37,589	65,290	67%	148
Duluth, MN-WI MSA	214,426	56,782	117,200	44%	287
Durham-Chapel Hill, NC MSA	252,354	65,845	216,839	40%	353
Eau Claire, WI MSA	223,405	63,094	64,452	39%	158
El Centro, CA MSA	234,495	59,418	42,914	32%	68
El Paso, TX MSA	171,999	51,310	267,497	39%	694
Elizabethtown, KY MSA	178,046	45,538	48,608	53%	175
Elkhart-Goshen, IN MSA	218,863	57,199	70,981	44%	161
Erie, PA MSA	300,781	88,158	111,662	17%	188
Eugene-Springfield, OR MSA	286,284	73,007	147,425	28%	227

Households Priced Out of the Market by a $1,000 Price Increase, 2014

Metropolitan Statistical Area	Median New Home Price	Income Needed to Qualify	Households		
			All	Percent that Can Afford	Priced Out
Evansville, IN-KY MSA	183,817	47,332	149,798	49%	256
Fairbanks, AK MSA	228,035	61,929	33,892	47%	98
Fargo, ND-MN MSA	223,606	62,807	91,187	41%	195
Farmington, NM MSA	254,662	62,485	35,965	47%	90
Fayetteville, NC MSA	203,097	53,953	147,433	42%	393
Fayetteville-Springdale-Rogers, AR-MO MS	271,763	67,378	182,509	35%	276
Flagstaff, AZ MSA	229,039	54,724	49,607	43%	94
Flint, MI MSA	225,094	71,795	171,869	26%	342
Florence-Muscle Shoals, AL MSA	138,411	34,354	54,083	56%	175
Fond du Lac, WI MSA	244,900	71,637	41,020	38%	105
Fort Collins-Loveland, CO MSA	289,367	70,156	128,382	39%	199
Fort Smith, AR-OK MSA	190,863	48,139	124,807	39%	289
Fort Wayne, IN MSA	238,403	62,176	167,061	38%	338
Fresno, CA MSA	293,061	73,897	304,713	30%	456
Gadsden, AL MSA	170,888	43,165	36,353	43%	62
Gainesville, FL MSA	202,516	53,567	94,526	43%	184
Gainesville, GA MSA	207,524	51,934	61,424	47%	152
Glens Falls, NY MSA	269,828	77,148	51,033	30%	75
Goldsboro, NC MSA	188,687	49,767	45,559	40%	106
Grand Junction, CO MSA	258,995	60,551	56,846	43%	88
Grand Rapids-Wyoming, MI MSA	253,115	71,378	297,890	34%	641
Greeley, CO MSA	269,681	64,966	96,568	40%	189
Green Bay, WI MSA	231,028	65,732	124,309	40%	224
Greensboro-High Point, NC MSA	288,492	74,552	295,059	28%	445
Greenville, NC MSA	184,839	48,872	90,674	44%	204
Greenville-Mauldin-Easley, SC MSA	277,468	67,903	254,703	34%	380
Gulfport-Biloxi, MS MSA	162,576	44,342	108,125	48%	270
Hagerstown-Martinsburg, MD-WV MSA	206,117	51,465	106,312	55%	238
Hanford-Corcoran, CA MSA	189,803	47,603	39,541	55%	114
Harrisburg-Carlisle, PA MSA	323,166	87,531	219,380	30%	310
Harrisonburg, VA MSA	175,588	41,958	47,538	54%	122
Hartford-West Hartford-East Hartford, CT M	319,298	91,708	477,064	37%	723
Hattiesburg, MS MSA	243,791	64,017	52,169	34%	88
Hickory-Lenoir-Morganton, NC MSA	252,219	62,967	150,672	27%	276
Holland-Grand Haven, MI MSA	247,807	67,911	97,057	42%	222
Honolulu, HI MSA	393,669	87,662	307,228	40%	420
Hot Springs, AR MSA	262,134	65,875	46,326	27%	66
Houma-Bayou Cane-Thibodaux, LA MSA	271,420	69,031	72,220	35%	115
Houston-Sugar Land-Baytown, TX MSA	195,144	60,997	2,167,245	47%	4,234
Huntsville, AL MSA	165,823	40,142	171,081	62%	384
Idaho Falls, ID MSA	161,729	40,306	41,575	60%	108
Indianapolis-Carmel, IN MSA	260,699	67,557	697,114	38%	1,312
Iowa City, IA MSA	271,832	76,239	67,287	36%	132
Ithaca, NY MSA	280,564	89,282	36,575	30%	40
Jackson, MI MSA	188,708	52,506	63,934	44%	190

NATIONAL ASSOCIATION OF HOME BUILDERS
Households Priced Out of the Market by a $1,000 Price Increase, 2014

Metropolitan Statistical Area	Median New Home Price	Income Needed to Qualify	Households		
			All	Percent that Can Afford	Priced Out
Jackson, MS MSA	244,997	63,545	192,760	38%	370
Jackson, TN MSA	193,808	49,633	47,158	37%	84
Jacksonville, FL MSA	280,185	73,490	508,999	34%	856
Jacksonville, NC MSA	148,170	37,704	66,124	66%	233
Janesville, WI MSA	213,437	64,369	62,636	38%	152
Jefferson City, MO MSA	224,583	57,677	59,464	46%	126
Johnson City, TN MSA	163,973	40,268	83,177	50%	239
Johnstown, PA MSA	301,932	84,153	60,029	19%	66
Joplin, MO MSA	144,861	37,416	72,896	55%	245
Kalamazoo-Portage, MI MSA	254,025	72,309	135,068	29%	243
Kankakee-Bradley, IL MSA	191,793	58,765	41,504	35%	111
Kansas City, MO-KS MSA	292,243	80,318	814,964	33%	1,194
Kennewick-Pasco-Richland, WA MSA	328,527	85,647	92,841	32%	129
Killeen-Temple-Fort Hood, TX MSA	169,434	50,058	146,822	51%	367
Kingsport-Bristol-Bristol, TN-VA MSA	179,999	45,171	122,105	43%	323
Kingston, NY MSA	377,249	114,249	72,871	19%	74
Knoxville, TN MSA	213,424	52,723	294,901	44%	537
Kokomo, IN MSA	215,884	54,403	39,545	41%	70
La Crosse, WI-MN MSA	219,155	62,946	57,652	37%	92
Lafayette, IN MSA	231,863	58,658	80,628	39%	156
Lafayette, LA MSA	187,491	47,716	110,350	52%	217
Lake Charles, LA MSA	234,773	60,482	81,131	36%	147
Lakeland-Winter Haven, FL MSA	236,300	64,659	235,702	30%	358
Lancaster, PA MSA	269,950	74,049	196,147	35%	413
Lansing-East Lansing, MI MSA	254,683	75,840	184,760	30%	390
Laredo, TX MSA	164,186	50,884	72,117	36%	196
Las Cruces, NM MSA	231,803	57,551	71,069	34%	130
Las Vegas-Paradise, NV MSA	182,564	46,013	755,412	55%	2,044
Lebanon, PA MSA	262,028	71,597	53,811	35%	115
Lewiston, ID-WA MSA	255,924	65,790	26,662	31%	59
Lexington-Fayette, KY MSA	175,954	44,491	194,617	55%	509
Lima, OH MSA	213,974	58,512	40,561	38%	100
Lincoln, NE MSA	229,995	66,939	123,808	38%	266
Little Rock-North Little Rock-Conway, AR M	207,826	52,753	283,816	46%	636
Logan, UT-ID MSA	223,458	53,659	42,138	46%	82
Longview, TX MSA	155,971	44,591	72,341	50%	218
Longview, WA MSA	246,663	65,225	35,426	32%	77
Los Angeles-Long Beach-Santa Ana, CA M	445,105	107,294	4,292,536	22%	3,813
Louisville/Jefferson County, KY-IN MSA	229,997	59,226	533,456	44%	1,140
Lubbock, TX MSA	250,013	76,069	111,958	29%	173
Lynchburg, VA MSA	223,782	54,240	102,347	43%	196
Macon, GA MSA	198,624	52,472	84,446	39%	169
Madera-Chowchilla, CA MSA	271,959	67,513	41,538	36%	73
Madison, WI MSA	293,258	83,743	244,625	35%	381
Manchester-Nashua, NH MSA	323,009	95,042	159,493	28%	230
Mansfield, OH MSA	222,557	61,861	48,355	33%	103
McAllen-Edinburg-Mission, TX MSA	137,758	42,748	237,476	40%	656
Medford, OR MSA	272,536	69,332	74,464	26%	156
Memphis, TN-MS-AR MSA	194,193	52,811	493,575	45%	1,183

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Medford, OR MSA	272,536	69,332	74,464	26%	156
Memphis, TN-MS-AR MSA	194,193	52,811	493,575	45%	1,183
Merced, CA MSA	351,321	88,213	79,793	16%	92
Miami-Fort Lauderdale-Pompano Beach, FL	342,099	97,050	2,058,718	17%	1,953
Midland, TX MSA	240,632	69,973	51,972	45%	111
Milwaukee-Waukesha-West Allis, WI MSA	346,831	100,111	641,192	22%	943
Minneapolis-St. Paul-Bloomington, MN-WI	336,496	89,372	1,327,842	36%	2,009
Mobile, AL MSA	163,596	42,440	154,719	50%	327
Modesto, CA MSA	255,320	64,669	166,773	37%	281
Monroe, LA MSA	196,501	50,170	70,146	37%	106
Monroe, MI MSA	227,025	62,366	57,536	42%	106
Montgomery, AL MSA	199,530	48,515	150,721	49%	276
Morgantown, WV MSA	208,761	51,142	51,113	42%	107
Morristown, TN MSA	203,473	50,167	50,289	38%	100
Mount Vernon-Anacortes, WA MSA	245,286	62,316	42,494	45%	77
Muncie, IN MSA	208,458	55,525	48,842	33%	103
Muskegon-Norton Shores, MI MSA	205,803	60,633	65,952	32%	129
Myrtle Beach-North Myrtle Beach-Conway,	203,843	50,379	137,484	41%	283
Napa, CA MSA	580,197	142,369	44,979	13%	19
Naples-Marco Island, FL MSA	413,389	105,952	123,245	22%	75
Nashville-Davidson--Murfreesboro--Frankli	261,290	65,354	622,873	40%	1,096
New Haven-Milford, CT MSA	318,180	93,482	337,231	29%	514
New Orleans-Metairie-Kenner, LA MSA	248,612	65,357	476,731	36%	750
New York-Northern New Jersey-Long Islanc	407,805	113,408	7,040,717	19%	5,742
Niles-Benton Harbor, MI MSA	355,099	96,306	67,997	17%	80
North Port-Bradenton-Sarasota, FL MSA	290,155	78,160	294,796	27%	371
Ocala, FL MSA	226,250	60,413	134,869	28%	333
Ocean City, NJ MSA	448,406	118,716	39,273	18%	35
Odessa, TX MSA	216,022	62,359	48,352	41%	108
Ogden-Clearfield, UT MSA	285,382	69,601	182,900	45%	391
Oklahoma City, OK MSA	230,816	63,382	487,440	38%	935
Olympia, WA MSA	290,425	74,854	103,069	42%	207
Omaha-Council Bluffs, NE-IA MSA	219,334	65,366	356,329	44%	731
Orlando-Kissimmee-Sanford, FL MSA	323,141	85,927	805,830	23%	955
Oshkosh-Neenah, WI MSA	249,872	72,679	66,752	34%	154
Oxnard-Thousand Oaks-Ventura, CA MSA	391,706	94,599	272,711	41%	343
Palm Bay-Melbourne-Titusville, FL MSA	359,862	98,315	221,973	19%	257
Panama City-Lynn Haven-Panama City Beac	187,641	48,955	66,256	51%	123
Pascagoula, MS MSA	162,073	44,932	55,327	49%	161
Pensacola-Ferry Pass-Brent, FL MSA	171,995	45,705	187,473	53%	489
Peoria, IL MSA	279,063	83,796	154,710	26%	283
Philadelphia-Camden-Wilmington, PA-NJ-D	270,854	75,346	2,240,167	41%	3,914
Phoenix-Mesa-Glendale, AZ MSA	299,444	74,110	1,594,811	34%	2,670

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Pittsburgh, PA MSA	383,844	110,558	1,012,323	16%	934
Port St. Lucie, FL MSA	346,618	99,486	183,423	21%	199
Portland-South Portland-Biddeford, ME MS	321,500	84,074	218,046	34%	281
Portland-Vancouver-Hillsboro, OR-WA MS	324,988	83,386	873,789	33%	1,190
Poughkeepsie-Newburgh-Middletown, NY	315,346	93,615	231,194	35%	383
Prescott, AZ MSA	271,476	65,766	98,451	33%	184
Providence-New Bedford-Fall River, RI-MA	314,448	84,389	623,169	32%	805
Provo-Orem, UT MSA	289,202	68,850	149,368	41%	309
Pueblo, CO MSA	212,056	54,060	62,804	42%	182
Punta Gorda, FL MSA	255,458	72,257	79,495	25%	189
Racine, WI MSA	283,360	83,396	75,451	32%	110
Raleigh-Cary, NC MSA	239,300	60,054	477,113	51%	986
Reading, PA MSA	255,169	74,361	143,350	35%	309
Redding, CA MSA	242,398	60,089	66,329	36%	109
Reno-Sparks, NV MSA	302,827	75,485	173,013	32%	295
Richmond, VA MSA	220,984	54,604	481,937	54%	1,003
Riverside-San Bernardino-Ontario, CA MSA	294,917	74,642	1,269,021	36%	2,050
Roanoke, VA MSA	247,589	61,709	138,319	40%	310
Rochester, MN MSA	289,029	76,208	74,890	46%	139
Rochester, NY MSA	363,279	119,792	421,843	15%	418
Rockford, IL MSA	161,275	52,310	132,629	45%	402
Rocky Mount, NC MSA	197,825	52,868	52,983	38%	107
Rome, GA MSA	233,496	60,762	33,306	34%	73
Sacramento--Arden-Arcade--Roseville, CA	368,853	92,854	796,644	29%	1,004
Saginaw-Saginaw Township North, MI MSA	220,475	64,958	81,456	31%	155
Salem, OR MSA	278,962	72,881	149,861	29%	271
Salinas, CA MSA	336,843	81,481	125,003	32%	156
Salisbury, MD MSA	172,707	43,739	44,757	51%	78
Salt Lake City, UT MSA	286,243	69,358	389,439	42%	777
San Antonio-New Braunfels, TX MSA	227,539	68,643	774,537	36%	1,712
San Diego-Carlsbad-San Marcos, CA MSA	443,256	106,876	1,117,831	27%	912
San Francisco-Oakland-Fremont, CA MSA	441,837	106,571	1,665,167	39%	1,597
San Jose-Sunnyvale-Santa Clara, CA MSA	447,432	107,821	647,818	42%	729
San Luis Obispo-Paso Robles, CA MSA	419,878	100,466	103,348	29%	137
Sandusky, OH MSA	243,727	66,843	32,955	32%	68
Santa Barbara-Santa Maria-Goleta, CA MSA	427,335	101,612	143,151	28%	120
Santa Cruz-Watsonville, CA MSA	287,744	68,260	90,282	47%	151
Santa Fe, NM MSA	180,544	42,743	65,157	62%	119
Santa Rosa-Petaluma, CA MSA	325,692	79,106	191,860	43%	262
Savannah, GA MSA	205,157	53,207	139,421	44%	311
Scranton--Wilkes-Barre, PA MSA	345,255	96,513	222,523	18%	274
Seattle-Tacoma-Bellevue, WA MSA	368,710	94,273	1,397,266	38%	1,775
Sebastian-Vero Beach, FL MSA	433,676	117,492	61,928	11%	37

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			All	Percent that Can Afford	Priced Out
Sheboygan, WI MSA	295,862	85,947	48,035	23%	79
Shreveport-Bossier City, LA MSA	199,792	51,275	151,106	48%	284
Sioux City, IA-NE-SD MSA	269,059	78,691	50,974	26%	72
Sioux Falls, SD MSA	180,932	49,784	89,630	56%	283
South Bend-Mishawaka, IN-MI MSA	275,678	72,826	119,914	27%	222
Spartanburg, SC MSA	169,499	42,354	115,152	52%	317
Spokane, WA MSA	358,134	93,874	192,335	21%	244
Springfield, IL MSA	248,178	74,317	87,129	35%	142
Springfield, MA MSA	357,528	97,210	259,426	23%	343
Springfield, MO MSA	210,300	53,752	184,137	39%	450
Springfield, OH MSA	245,947	68,424	53,722	27%	95
St. Cloud, MN MSA	238,803	62,543	71,849	44%	136
St. George, UT MSA	218,646	52,782	52,381	43%	121
St. Joseph, MO-KS MSA	212,137	55,439	50,925	39%	103
St. Louis, MO-IL MSA	263,137	72,040	1,115,669	36%	2,071
State College, PA MSA	261,048	69,018	53,699	44%	88
Stockton, CA MSA	311,589	78,983	219,842	32%	252
Sumter, SC MSA	131,871	33,549	38,919	65%	124
Syracuse, NY MSA	299,007	95,900	268,267	23%	387
Tallahassee, FL MSA	220,666	56,798	137,300	42%	279
Tampa-St. Petersburg-Clearwater, FL MSA	376,565	103,652	1,177,086	17%	842
Terre Haute, IN MSA	203,506	54,299	73,531	42%	173
Toledo, OH MSA	255,682	73,852	260,186	26%	362
Topeka, KS MSA	216,320	62,215	91,646	40%	221
Trenton-Ewing, NJ MSA	446,961	136,243	134,536	23%	88
Tucson, AZ MSA	287,021	73,702	399,026	29%	660
Tulsa, OK MSA	223,880	60,536	375,628	40%	867
Tuscaloosa, AL MSA	248,394	59,158	79,981	37%	120
Tyler, TX MSA	232,175	65,966	74,360	33%	129
Utica-Rome, NY MSA	298,972	94,627	118,949	17%	169
Valdosta, GA MSA	137,268	35,630	54,958	49%	196
Vallejo-Fairfield, CA MSA	255,570	64,307	143,461	53%	259
Vineland-Millville-Bridgeton, NJ MSA	177,370	55,125	50,779	44%	104
Virginia Beach-Norfolk-Newport News, VA-	234,587	59,056	648,268	50%	1,370
Visalia-Porterville, CA MSA	253,824	63,209	134,074	33%	272
Waco, TX MSA	201,313	60,613	87,319	33%	163
Warner Robins, GA MSA	232,089	60,349	53,293	43%	116
Waterloo-Cedar Falls, IA MSA	232,706	64,308	65,726	37%	166
Wausau, WI MSA	243,269	70,353	49,835	39%	111
Wenatchee-East Wenatchee, WA MSA	239,422	60,552	42,564	42%	94
Wichita Falls, TX MSA	223,899	70,763	64,542	30%	159
Wichita, KS MSA	226,945	64,818	245,039	41%	586
Williamsport, PA MSA	289,987	79,994	43,826	22%	70
Wilmington, NC MSA	266,712	66,865	152,944	35%	282
Winchester, VA-WV MSA	233,050	56,203	51,402	41%	62
Winston-Salem, NC MSA	189,420	48,459	201,425	46%	445
Worcester, MA MSA	296,995	79,168	307,142	40%	428
Yakima, WA MSA	276,602	72,065	75,369	26%	135
York-Hanover, PA MSA	265,832	74,801	170,288	37%	352
Youngstown-Warren-Boardman, OH-PA M	232,467	65,474	224,983	30%	405
Yuba City, CA MSA	246,352	63,666	57,492	35%	115
Yuma, AZ MSA	178,173	46,100	69,720	45%	187

NATIONAL ASSOCIATION OF HOME BUILDERS
Households Priced Out of the Market by a $1,000 Price Increase, 2014

Metropolitan Statistical Area	Median New Home Price	Income Needed to Qualify	Households		
			All	Percent that Can Afford	Priced Out
Yakima, WA MSA	276,602	72,065	75,369	26%	135
York-Hanover, PA MSA	265,832	74,801	170,288	37%	352
Youngstown-Warren-Boardman, OH-PA M	232,467	65,474	224,983	30%	405
Yuba City, CA MSA	246,352	63,666	57,492	35%	115
Yuma, AZ MSA	178,173	46,100	69,720	45%	187

CHAPTER 4

A Closer Look at Impact Fee Technical Studies

- ***Methodology***
- ***Population and Land Use Assumptions***
- ***Levels of Service***
- ***Credits***
- ***Construction and Land Costs***
- ***Offsets***
- ***Credits***
- ***Service Areas***
- ***Transportation-Related Issues***
- ***Legitimacy of Growth-Related Costs***
- ***Proportionate-Share Impact Fees***
- ***Discount Impact Fee Schedules***
- ***Commonly Found Errors***
- ***Revising State Statutes to Address Jurisdictional Overreach***
- ***Conclusion***

When local governments decide to implement impact fees, they will commonly direct either their staff or a consultant to prepare a document that, among other things, analyzes the public costs of constructing capital facilities, calculates the share that is needed to serve new development, and determines the portion of that share which will not be paid from other fees and taxes on new development. This study is called a technical memorandum, fee calculation study, public facility needs assessment, nexus report, or some such similar name (herein termed "technical study").

The technical study is important because it is needed to demonstrate that the impact fees are logically related to a need created by new development and that the amount charged is proportional to the cost of providing public facilities. The technical study is not part of the impact fee ordinance itself but it provides the necessary background and is the source for the schedule of impact fees contained in the ordinance.

In order to determine the fairness and legality of any impact fee charge, it is necessary to illustrate how the impact fees were calculated. The local government should always make the technical study available prior to a public hearing on an impact fee ordinance or at any time after adoption. In rare cases, the technical study is not available or was

never prepared. In these instances, the local government is susceptible to legal challenges on the basis that the impact fee schedule was established arbitrarily. It should be emphasized that impact fee calculation is a complex and subtle matter and even experienced impact fee consultants make errors that can potentially result in overcharges (see Chapter 2, pp. 15-18).

Some state impact fee laws specifically require a technical study and mention particular aspects of the study which must be present. *Technical studies prepared by or for local governments should always be checked against applicable state statutes in order to verify that all requirements of the applicable state statutes have been addressed.* Even in the absence of pertinent state laws, a sound impact fee technical study is essential to establish the validity of impact fees (see Chapter 2, pp. 15-18). This chapter will discuss various technical issues that should be addressed in impact fee studies and point out some common errors made in impact fee methodologies and calculations.

Methodology

The preparation of an impact fee technical study has much in common with the preparation of a fiscal impact study except that the former considers only capital costs, not operating costs. The fiscal consequences of new development must be accounted for because, unless it can be shown that the public cost of providing capital facilities for new development exceeds the amount of revenue generated by new development for capital construction purposes, then impact fees cannot be justified.

Just as there are several different approaches to fiscal impact analysis, there are several different methodologies that may be used to estimate impact fees. The different approaches can produce different results and it can be argued that some are more accurate than others. These methods are referred to by various names, but there are three essential types: the *incremental expansion approach*, the *buy-in approach*, and the *plan-based approach.* All three approaches are commonly employed in the United States.

Incremental Expansion Approach

The key operating assumption in impact fee technical studies that use the incremental expansion approach is that future development will require the same types of capital facilities at existing levels of service and current replacement costs as those capital facilities currently being utilized by existing development.

The incremental expansion approach documents the current level of service using either quantitative or qualitative measures. The incremental expansion approach examines the replacement cost of existing capital facilities within a proposed impact fee category and divides this cost by the population served to produce a figure that is the average cost per capita for a particular type of facility. It is assumed that future costs per capita will maintain existing levels of service and will approximate the current replacement

costs of providing these facilities. Figure 4.1 provides an example of how a fire impact fee may be established utilizing the incremental expansion approach.

Figure 4.1: Sample Impact Fee Calculation Utilizing the Incremental Expansion Approach

Description	Calculation	Amount
Replacement Cost of Fire Station	A	$ 2,000,000
Population Served by Existing Station	B	10,000
Average Replacement Cost per Person	(A / B) = C	$ 200
Persons per Household	D	2.2
Impact Fee per Household	**C * D = E**	**$ 440**

Assuming the cost of maintaining existing levels of service follows current patterns, the incremental expansion approach may give a reasonable approximation of the costs necessary to serve new development. This approach also requires minimal planning on the part of the local community, and is easiest to execute in a technical study.

However, the incremental expansion approach has a serious flaw. It assumes that the cost to provide facilities throughout the community is the same in any particular part of the community. But costs in a particular location depend on local conditions. Using the fire facility fee as an example, the cost of providing fire facilities for a property within the response radius of an existing station will differ substantially from the cost of providing new facilities for properties beyond the reach of existing stations. Properties that can be served by existing fire facilities will not require the expenditure of additional capital funds. The incremental expansion approach makes no distinction between properties that require additional capital spending and properties that don't.

Buy-In Approach

A variation on the incremental expansion approach has been devised which is sometimes referred to as a buy-in approach. The buy-in approach seeks to recoup from new development the cost of the excess capacity present in existing facilities which is available to serve new development. The buy-in approach utilizes the actual cost of the facility when it was constructed. Rather than dividing by the population presently served by the facility, the denominator includes present population plus projected future population of the service area which can be served by the facility in question without additional capital improvements. In this way the government recovers from new development an amount determined to be its fair share of the cost of previously constructed facilities. The rationale for the buy-in approach is that new development will pay its fair share of the remaining capacity of completed facilities.

Plan-Based Approach

The key operating assumption of the plan-based approach is that future development will follow adopted community plans, and future capital facilities needs and costs will vary based on location and types of new development.

The plan-based approach differs from the incremental expansion approach and buy-in approach as it does not rely on replacement costs or the actual costs, respectively, averaged over the entire community's population but rather the plan-based approach relies on specific planned facilities and the populations projected to be served by them. Again using fire facilities as an example, the plan-based approach would begin with the community's comprehensive plan or capital facilities plan to find how many new fire stations were planned for future populations to provide a specified level of service (e.g., minimum response time). The service area of each station would be examined to determine planned densities, land uses, and populations. The cost of providing service in each service area would be obtained from the same kind of engineering cost estimates used to prepare the capital budget (or from the capital budget itself [1]). Presumably, there would be differences in the costs from station-to-station, reflecting differences in equipment needed to address different fire risks associated with the specific mix of land uses in each station's service area. The impact fee calculation would involve dividing the capital cost for each station by the number of units served (dwellings, increments of nonresidential space) and/or projected to occupy each service area.

The technical study may use different unit types for determining impact fees depending upon the infrastructure system in question, such as gallons of demand for water systems or trips generated for roadway systems. The plan-based approach is more time consuming (therefore more expensive) but is thought to be more realistic as it examines individual service areas and their public facility requirements in detail. It should be noted, however, that this approach may drastically over or underestimate service demands for plans with long planning horizons (i.e. a 20-year plan). As such, the plan-based approach is best utilized with a three- to five-year planning horizon.

Special attention must be paid to ensuring that the capital facilities plan maintains a level of service that is consistent with the community's existing levels of service. If higher levels of service are being implemented the technical study must allocate a portion of the costs associated with the higher level of service to existing development and indicate what alternative funding sources will be used by the community (excluding impact fees) to upgrade existing facilities to meet the new proposed increased levels of service (see Level of Service section below).

If a jurisdiction is attempting to implement levels of service that are higher than their current service standards, the jurisdiction must fund the costs associated with increasing the existing level of service with funding sources other than impact fees before it can begin to levy and collect impact fees at the higher level of service. In such situations, the jurisdiction will often designate a funding source for increasing the existing level of service. *In such a situation, care should be taken in subsequent technical study reviews to verify that the jurisdiction did provide the designated funding to finance the higher levels of service.* Past experience has shown that often times the jurisdiction never provided the designated funding to increase the levels of service although they imposed impact fees based upon the higher level of service.

Hybrid or Ad-hoc Approaches

Some communities utilize a hybrid or ad-hoc methodology that combines elements of all of the impact fee approaches. The most important consideration when evaluating a hybrid or ad-hoc approach is whether the state statute is followed. Further, it is important to consider the strengths and weaknesses of the approach utilized compared to other more conventional approaches.

Population and Land Use Assumptions

Many state impact fees enabling laws require the community to specify the population and land use assumptions upon which the impact fee calculation will be based. This is important because the plan-based approach and buy-in methods rely on projections of future population and land use. However, the incremental expansion approach is not typically reliant on these assumptions. Normally, the community's comprehensive plan would be the source for these assumptions and projections. If the community has no comprehensive plan, or is out of date, a separate study may be used. Communities unwilling or unable to commission a comprehensive plan or special study sometimes ignore the issue of growth assumptions by using the incremental expansion approach.

The population and land use assumptions are worth examining in detail because the amount of the impact fee will depend on the number of persons, dwellings, and nonresidential land uses that will share responsibility for capital costs. *A common error in impact fee studies is inadequate consideration of household size trends or failure to consider and evaluate household size and trends at all.* Household size is important because a small change in the average household size can create substantial changes in overall population or in demand for housing. Many studies only consider the community's household size as reported in the most recent census and assume that future families will share the same characteristics as existing families. There is no valid reason to make this assumption. Census data show that household size has been decreasing over time for the U.S. as a whole. NAHB studies indicate that this trend is reflected in many local areas as well. The census data also show that families which have recently moved (the source of most local population growth) have a smaller household size than the national average. This trend has the following implications for impact fee calculations: fewer persons in each household means that the marginal impact of each additional dwelling unit is less; furthermore, a greater number of dwelling units will be needed to house an equivalent population, thus sharing costs over a greater number of units and reducing the per-unit impact fee amount. This is especially true given current demographic trends associated with aging baby boomers who are downsizing and/or Millennials who tend to remain single much longer than previous generations.

Land use assumptions also need to take account of demand from nonresidential land uses in order to avoid over-counting the demands and costs related to population and housing. For example, police and fire capital facilities will be sized to serve both

residential and nonresidential development, so costs should be spread over both types in proportion to the demand generated by each.

Levels of Service

Level of service is a concept for defining the quantity of public facilities that must be provided in order to adequately satisfy citizens' demands for capital facilities. For example, the number of public park acres per capita is a measure of the level of service for park facilities and the average response time is a measure of the level of fire, emergency medical, and police services. When calculating the amount of public facilities that will be required to serve new growth, one must select a specific level of service in order to quantify the required investment. For example, if the selected level of service for park facilities is 0.03 acres per capita and the projected population increase is 10,000 persons, then the required investment is 300 (10,000 x 0.03) additional acres. *Many communities assume, wrongly, that they are free to select the level of service of public facilities for new development.*

A community may not require new development to fund a higher level of service that it did not require for existing development. The only level of service that may be used to quantify the public facility requirements of new development is the level of service currently provided in the community. There is one exception, however: a community may require higher levels of service for new development if it is concurrently implementing a plan to raise the level of service for existing development and is funding the plan with revenues other than impact fees on new development.

If a community plans to increase its levels of service and has indicated in the technical study the source from which the funding will be derived to accomplish this, it is important to periodically verify that the community has in fact utilized those funding sources rather than impact fees to meet this end.

All technical memoranda should address the issue of levels of service explicitly. Many address levels of service implicitly, inappropriately, or not at all. Additionally, many state statutes require that levels of service be disclosed and to the extent that a technical study does not address the levels of service, such a technical study may not be compliant with state statutes leaving the community open to potential legal challenges.

Construction and Land Costs

Replacement costs as utilized in the incremental expansion or plan-based approaches should be based on estimates prepared by qualified state license engineers, actual bids, or data provided by a costing service such as Marshall & Swifts or RS Means. Land values should be supported by recent comparable land sales occurring within the immediate area over the last 6-month period. More times than not, replacement cost estimates lack the supporting documentation necessary to determine the reasonableness of the cost. To the extent that replacement costs are inflated, new growth will fund facility costs in excess of existing levels of service.

If the buy in approach is utilized to estimate impact fees, the actual costs of the facilities should be used as opposed to their current replacement costs. In the *Boa v. Seattle* (Washington 1965)[2] case, the court held that the "value" of facilities must be based on the historical cost rather than the inflated replacement cost of the facility, thereby rejecting a buy-in fee based on the purported replacement cost of the facilities rather than the much lower historical costs. If for whatever reason the replacement cost is utilized in the buy-in approach, allowance for depreciation should be taken to reduce the costs to more closely align with historic costs.

Offsets

Certain state enabling acts, such as Utah and Arizona, require impact fees to be reduced based upon future cash flows generated from new development, including but not limited to: property taxes, construction sales taxes, gas taxes, state shared revenue and other revenue sources that will be utilized to pay for capital facilities (offsets). *The impact fee amount is established to cover the cost of capital facilities less these other revenue collections.*

An equitable impact fee methodology will take offsets into account when estimating impact fee amounts. Technical studies that include offsets recognize that new development provides financial contributions other than impact fees to fund capital facilities. In essence, offsets protect home builders and homebuyers from double-paying for the same capital facilities. Potential offsets include:

- Grants;
- Gasoline taxes;
- Sales taxes;
- User fees;
- Bond repayments (i.e. through property taxes);
- Property taxes dedicated to fund capital facilities;
- Transfer taxes; and,
- State shared revenues.

Credits

An impact fee payer is entitled to a reduction in the amount of the impact fee (a credit) to compensate for contributions he or she has made or will make toward the cost of capital facilities. It is essential that the technical study and/or impact fee ordinance provide developers and builders with a mechanism to receive credits if they are due. *Many technical studies ignore the methodologies of how impact fee credits are to be calculated thus leading to inconsistent impact fee credit calculations.*

There are three key types of credits:

1) *In-Lieu of Impact Fee Credits:* credits provided to developers or home builders in exchange for the construction and/or dedication of infrastructure items that would otherwise be funded through impact fees. For example, a developer should receive credit equal to the cost of constructing and dedicating a sewer treatment plant if a portion of the local community's sewer impact fee is normally utilized to pay for sewer treatment facilities.

2) *Excess Capacity Impact Fee Credits:* credits for dedication of public facilities that provide excess capacity beyond what is required by a particular project that would otherwise by funded by impact fees. For example, a local community may request that a developer build and dedicate a new sewer treatment plant with enough capacity to serve the project in question but also other neighboring projects that will be completed in the future. In this case, the developer is not only given impact fee credits for the developer's immediate project; the developer is also given impact fee credits for the costs of the excess capacity. These excess capacity impact fee credits are the personal property of the developer and may be applied to the developer's future projects or sold to other developers with development projects located within the service area.

3) *Land Use Credits:* credit for a change in land use that results in less impact than the previous land use. Credits are generally addressed in the impact fee ordinance itself. For example, when a large portion of the community's general plan is amended from residential to industrial uses, adjustments to the impact fee ordinance are required.

Consideration should also be given to the interaction between impact fee credits and alternative infrastructure financing tools such as special taxing districts. Special taxing districts in most cases are separate political subdivisions established for the purpose of issuing tax exempt bonds to fund public infrastructure. Special taxing districts vary from state-to-state and are called: Community Facilities Districts (California, Hawaii and Arizona), Municipal Utility Districts (Texas), Community Development Districts (Florida), Public Improvement Districts (Texas, New Mexico) and Special Improvement Districts and General Improvements Districts (Nevada). (See Chapter 6 for more information on this topic). Because special taxing districts are used to finance public infrastructure, to the extent that a special taxing district is financing capital improvements that would otherwise be funded through impact fees, impact fee credits must be given for the cost of the capital improvements funded through the special taxing district.

As a side note, the use of special taxing districts by developers and communities is a very effective way of having growth pay for growth. The use of special taxing districts may dramatically reduce the amount of impact fees required by a community. For more information on the use of special taxing districts as an alternative to impact fees see Chapter 6. Additionally, the NAHB has published a handbook specifically dedicated to

special purpose taxing districts entitled, An Overview of Special Purpose Taxing Districts. The publication may be found on the NAHB website at http://www.nahb.org/en/research/nahb-priorities/land-development/special-purpose-taxing-districts.aspx.

If an ordinance/technical study does not adequately address the issue of impact fee credits, developers and/or home builders may wish to include impact fee credit provisions in their development agreement(s) with the applicable community documenting the understanding of the parties in relation to how impact fee credits will be calculated and administered.

Service Areas

Generally defined, a service area is a geographic area that is served by a public facility. For example, the service area of a neighborhood park is the residential community near the park where the users of the park live. Service areas are generally defined by proximity and accessibility (i.e., areas within the service area are closer to the facility and/or have easier access to the facility than areas outside the service area). The concept of service area does not mean that the facility is reserved exclusively for service area residents or that the facility never provides services to those outside the service area. It means, rather, that the facility was designed and intended primarily to serve a given area.

From the standpoint of fairness and equity, the use of service areas are preferred if a community is implementing or updating an impact fee program. *Service areas allow impact fees to be more closely linked to the actual cost of providing capital facilities in a given service area.*

Service areas are important for a number of reasons. The capacity of existing public facilities is usually inconsistent across a community. Some service areas will have capacity to serve additional development, others will not. Land use, density, topography, and access will vary from one service area to another and this will cause the expense of providing needed capital facilities for new development to vary from one area to another.

Because many states require that impact fees be roughly proportional to capital costs imposed by development, each service area should be examined to determine the capital cost implications of development in that specific area. The capital cost calculations should also take into account the existing levels of service provided in individual service areas. In the administration of the impact fee ordinance, it will be easier to show that impact fees collected from a property are spent to benefit that property if impact fees collected in a service area are placed in an account dedicated exclusively to spending for capital facilities in that service area.

Many communities designate the entire community as a single service area on the theory that individual capital facilities are part of a system, such as the park system, road system, or school system. According to this view, impact fees collected in one area

may be spent on any other part of the system because improvements anywhere in the system benefit the entire system. Communities prefer this method as it also provides them with greater flexibility in spending impact fees. Also, fewer service areas reduce the administrative burden of tracking impact fee revenue and expenditures.

There are several problems caused by communities using just one service area. In general, the benefits of a public facility diminish with distance from it. Therefore, if impact fees collected in one local area are spent to construct a facility in a different area, the area where the fees were paid will not be the principal beneficiary of that capital spending. For example, it is difficult to see the rational nexus between park impact fees collected on the west side of town and a new neighborhood park constructed with those fees on the east side of town. *Courts and State legislatures in some states have determined that new development, though it need not be the sole beneficiary of impact fee spending, must benefit more than other property from spending of the impact fees it has paid.* Unless impact fees are accounted for and spent within the local service area where they are collected, it is difficult to demonstrate the legally required rational nexus (see Chapter 2, pp. 15-16).

If a "systems approach" to impact fee spending is taken, then a new method of impact fee calculation is required. Since new facilities constructed with impact fee revenues are assumed to improve the "system" for the benefit of all system users, impact fee calculations must account for the fact that the majority of system users are existing residents. In other words, new development must not be asked to pay more than its pro rata fair share for system improvements. Given that in any year the amount of new development is a small fraction of the amount of existing development, new development therefore must pay only a fraction of the cost of new capital facilities.

Transportation-Related Issues

There are a number of technical issues related to the calculation of traffic or road impact fees that do not apply to other types of impact fees. These have to do with peak versus average daily traffic volumes, trip diversion, trip substitution, and sources of trip generation data.

Peak Traffic versus Average Daily Traffic

Different land uses generate traffic at different rates. Road impact fee formulas should take this into account by making use of local trip generation studies or data from national sources such as the Institute of Transportation Engineers (ITE). The results of trip generation studies are reported as the number of trip ends generated by an increment of land use (dwelling unit, 1,000 square feet of retail space, number of hospital beds, etc.) expressed as the average number of trips in a 24-hour period and/or the average number of trips during the peak hour(s). Some communities base impact fee calculations on average daily traffic (ADT) and others on peak hour trips. For example, a number of Florida cities and counties use ADT, whereas a number of California and Illinois communities use peak hour traffic as the basis for calculations.

Whether ADT or peak hour traffic should be the basis for road impact fee calculations can be debated. A case can be made, however, that not every trip generated by new development creates a need for additional roadway capacity. Trips added to adjacent roads during off-peak hours in most cases will not add significantly to congestion on those roads. For example, a nightclub that opens at 9:00 p.m. and closes at 2:00 a.m. will add trips to the adjacent roads at a time when roads have more than enough available capacity to absorb these trips. It would be difficult to justify road impact fees for this nightclub use because it does not create a need for additional lane capacity. Road impact fees are justified, however, when trips are added during times when the road is already operating at or near capacity (i.e., peak hours) such that the level of service will be decreased unless additional capacity is added. Most land uses generate traffic throughout the day, but it is the traffic they generate during peak hours, when adjacent roads are least able to accommodate additional trips, that is critical to determining the demand for additional road capacity created by new development for which an impact fee will be charged. Trips generated during off-peak hours, when capacity is ample, have little impact, create no need for additional capital improvements, and should not enter the calculation of road impact fees.

It should be noted that the concepts related to peak versus average daily demand also apply to water and wastewater impact fees.

Trip Diversions

A common but not universal practice is to apply a trip diversion factor in the calculation of road impact fees. This factor accounts for the fact that some trips to a land use are not separate, single-purpose trips but, instead, are diverted from the stream of traffic passing by. For example, the trip diversion factor for a convenience store is high because visits to the store frequently occur while the driver is pursuing another trip purpose, such as returning from work. If the work trip and the store trip were counted separately, over counting would occur. The diversion factor for doctors' offices is low because such trips are usually planned in advance rather than impulsively combined with another trip purpose. The diversion factor is applied as a percentage by which the trips generated by a land use are reduced.

Trip Substitution

Not all trips generated by new development are net new trips. Some trips to a new land use replace existing trips. For example, when a neighborhood convenience store opens, some longer trips to a highway shopping center are replaced by shorter trips to the convenience store. The net result is actually a lower impact on the road system because the new trips are shorter. In general, when new retail uses are added to a saturated market, there is not a proportionate increase in shopping trips. Instead, trip destinations shift from one area to another.

Because of trip diversion and trip substitution effects, at least one locality, Los Angeles, exempts certain land uses from road impact fees. The exempt land uses are generators of local short-distance trips including car washes, gasoline stations, automotive repair shops, walk-in or drive-through banks, convenience stores, free-standing supermarkets, storage facilities, convalescent hospitals, and restaurants. These land uses are not thought to substantially affect the region's transportation infrastructure.[3]

Sources of Trip Generation Data

The best data source for trip generation is a properly conducted study carried out in the community that imposes the impact fees. Such studies can be expensive, so many communities use data derived from studies in other communities such as the Institute of Transportation Engineers (ITE) manual, *Trip Generation.* Use of data from the ITE manual is legitimate, provided the limitations of the data are well understood. The ITE manual compiles trip generation data on a wide variety of different land uses based on local studies conducted throughout the United States. For some land uses, the data is derived from a large number of studies covering a broad range of the independent variables (e.g., number of employees, leasable area, etc.). More confidence can be placed in this data than in the data for other land uses which may be derived from only two or three local studies. Indeed *Trip Generation* contains caveats and warnings about data limitations. While the ITE is certainly a reputable organization, it would be a mistake to uncritically accept their published data. Impact fee payers would be well advised to carefully consider the source and reliability of the trip generation rates on which impact fee schedules are based. In some cases, the commissioning of an independent fee calculation study may result in considerable impact fee savings.

Legitimacy of Growth-Related Costs

An essential part of impact fee calculations is the determination of the cost of capital facilities that new development will require. In an ideal world, the capital facility needs of new growth are set out in a well-considered and duly-approved long-range comprehensive plan. Every year the five-year capital improvement plan that identifies the cost and source of funds for capital projects is updated and adopted. In the real world, however, impact fee ordinances are frequently adopted in the absence of either comprehensive planning or capital improvement planning. In these cases, capital facility cost data may be found in the appendices of impact fee technical memoranda, in separate engineering cost estimates, in consultant reports, or elsewhere. *Like every other aspect of impact fee calculation, cost data should be examined critically.*

Each item that is proposed to be funded with impact fees should be examined to determine if it meets the definition of capital costs for which impact fees may be charged. If state statutes apply, there will be a specific description of legitimate capital costs in the law. The local ordinance itself should contain a definition of "capital cost" or "capital facility." For example, the definition may include buildings, but not furniture, books, computers, or nondurable items with a useful life of three years or less. Generally, some "soft costs" such as legal and engineering costs may be permitted, but

these may be limited.[4] Other noncapital costs such as "contingencies," "administrative costs," and "interest" are questionable. Operating costs, maintenance, repairs, salaries, and other recurring costs should not be included.

Next, it should be determined if the facilities are intended to serve new development, if they will correct an existing deficiency, or if they will principally benefit existing development. A simple test is to assume that there will be no new growth and determine if the facility will still be needed. If the facility is still needed, then it is obviously intended to benefit existing residents and may not be funded with impact fees paid by new development. The capital improvement plan or other documents may provide details that indicate who the principal beneficiaries will be. For example, the budget documents may state that the purpose is to correct a deficiency, or they may indicate that the facility will be located in a developed part of the community, or that it improves or replaces an existing facility. In cases where the principal beneficiary of the facility is existing development, its cost should not be included in impact fee calculations.

Having determined that a capital facility is a type that qualifies for impact fee funding under state and local law and that the principal beneficiary will be new development, the next question concerns whether the amount of spending proposed is commensurate with needs and conforms to existing levels of service in the community. For example, if existing neighborhood parks are less than 10 acres in size, a proposal for a new 35-acre neighborhood park should be questioned. Likewise, a proposal to purchase a ladder truck for a fire station that serves low-density residential land use should raise a red flag.

Unlike general obligation bond issues, which must be approved by taxpayers at referendum, the political threshold for impact fee spending is very low. As a result, there is not as much pressure on the community to contain costs. Under this relaxed spending discipline, municipal departments have a tendency to "gold-plate" their capital requests. This danger is magnified when there is no comprehensive planning or capital budgeting process that requires department managers to justify their capital requests to the legislative body in a public hearing.

Proportionate-Share Impact Fees

At times a jurisdiction may use proportionate-share impact fees. The rationale behind proportionate-share impact fees is that impact fees for new residential units are "proportionate" to unit size. The idea being that larger units have more people with higher incomes who generate greater impacts on public facilities. Accordingly, larger units should pay higher impact fees than smaller units. However, the argument for impact fees graduated by unit size is not convincing and in fact is counterproductive to housing affordability.[5] The more straightforward and cost-effective way to promote affordable housing is to charge one flat impact fee for all housing units and to apply waivers selectively for affordable housing units.

Practitioners who believe impact fees should vary by unit size attempt to calculate impact fees precisely. But impact fees, as opposed to taxes, tend to be regressive. Methodologies designed to establish progressive impact fee structures may undermine their legitimacy as fees; such calculations are not legally mandated. The courts have rarely commented on methodology unless the resulting fee differences were extreme.

In fact, Dolan simply requires "rough proportionality" in setting impact fees that reflect the public facility costs of new residential development. Rough proportionality can be satisfied with the calculation of one impact fee for all residential units. This position is supported by the finding that the difference in persons per household is less than one person in comparing units of less than 1,000 square feet with units of up to 3,000 square feet.[5] Local jurisdictions that develop more complicated methods in an attempt to calculate proportionate-share impact fees will find the resulting fee schedules more difficult to defend and more costly to calculate, and more time consuming to administer, as well as exceeding the "rough proportionality" requirements of Dolan.

If proportionate-share impact fees are used, they should employ the most relevant demand generator to estimate facility impacts, but population (including school-aged children) is the best indicator only in limited applications. Furthermore, the drivers of demand used in public facility planning and capital improvements programming should correspond to the demand generators employed in impact fee calculations. Since impact fees based on unit size reflect needs generated by population (or number of children) but are calculated on the basis of housing characteristics, local jurisdictions would have to reconcile these relationships.

When graduated impact fees for residential units are considered instead of one flat impact fee, one should verify that the best unit characteristic is being utilized. The choices are typically unit type, unit size, or number of bedrooms. Of these factors, unit type is by far the most widely used. Data on single family, multifamily/apartments, and other unit types are publicly available for most local jurisdictions, and practitioners usually can generate defensible impact fees that are specific to housing unit type. Practitioners who prefer unit size to type are more likely to use data on number of bedrooms, because these data are more readily available and accessible than data on unit size. If unit size data is also available, practitioners should select the factor that predicts occupancy most consistently.

One often hears the argument that one level impact fee is inferior to impact fees graduated by unit size. Static impact fees are assumed to be regressive, whereas impact fees graduated by unit size are progressive. Thus, graduated fees are assumed to mitigate the negative impacts of impact fees on affordable housing. This argument ignores four advantages of level impact fees, the most important of

which is that they are inherently progressive. As such, when making a case against proportionate-share impact fees one may want to employ the following arguments.

Household Size – Homes in any size/cost range that pay the same impact fees are occupied by households of different sizes. Smaller households would tend to be more affluent than larger households purchasing houses in the same size cohort. Thus, with the same impact fee charged for these housing units, higher-income households with fewer occupants would overpay whereas lower-income households with more occupants would underpay relative to facility impacts.

Housing Affordability - Although the claim is made that graduated impact fees improve housing affordability, this approach is very crude. Affluent households that opt to purchase smaller units would receive the same benefit as lower-income households occupying units in the same size range.

Impact Fee Sensitivity - Static or flat impact fees are less sensitive to the vagaries of the market than variable fees. Revenues from graduated fees will be more difficult to predict than revenues from flat fees.

Ease of Calculation - Static impact fees require less detailed calculations of revenue credits than graduated impact fees. When unit size is the attribute used to estimate proportionate demand for graduated impact fees, practitioners are obligated to calculate multiple revenue credit streams that relate unit size to revenue generation. With variable fees, ad valorem-based revenue credits must correspond to residential segments of the tax base that pay the taxes. Similarly, sales tax-related credits must be proportionate to taxable spending driven primarily by household income.

Even if there was a flawless logic to justify impact fee calculations based on unit size, the feasibility of the approach has to be evaluated in every case. We have assessed the tasks and questions local practitioners would need to resolve to impose defensible impact fees based on unit size. We found that the amount of data need to do such a calculation properly is voluminous and will be more expensive to implement than a static impact fee calculation.

Additionally, when reviewing proportionate-share impact fee technical studies, one must keep in mind Dolan's rough proportionality test and not ignore the proportionate treatment of revenue credits to ensure that fundamentals of cost accounting as well as the logic of fiscal impact analysis are taken into account. When impact fees are used to raise revenues needed for public facilities, flat residential impact fees can minimize the potentially negative influences on housing affordability. Compared with impact fees graduated by unit size, flat fees are straightforward to estimate, easy to administer, and actually more progressive when revenue credits are taken into account.

For more detailed information related to proportionate-share impact fees see the NAHB's publication Proportionate-Share Impact Fees on the NAHB's website at www.nahb.org.

Discounted Impact Fee Schedules

After calculating the impact fee amount according to a formula that will vary for each type of impact fee, many communities discount this nominal fee amount by a certain percentage. The nominal impact fee amount represents the highest amount that can be legally charged. There are technical, administrative, and political reasons for discounting this fee amount. Impact fee calculation is a complex technical exercise that often requires expert judgment. As a result, technical and judgmental errors are common. To protect a community from liability in the event of a legal challenge to its ordinance, the fee amounts are sometimes discounted to account for the possibility of overcharges due to technical errors. Impact fee ordinances are easier to administer if fee payers accept a simple flat fee rather than insisting on their right to individual fee determinations. Fee schedules will therefore be discounted as an incentive to avoid time-consuming individual fee calculations. For political reasons, such as keeping fees in line with those charged by other communities, a community may decide to charge less than the calculated fee.

Commonly Found Errors

Figure 4.2 on the following page illustrates some of the most common errors found in technical studies relating to the calculation of impact fees.

Figure 4.2: Common Errors with Impact Fee Technical Studies

	Error	Explanation	Example
1	**Construction Cost Estimate and Adopted Capital Improvements Plan Inconsistencies**	Cost estimates utilized in the technical study do not agree to the costs identified in the community budget, capital improvement plan or recently completed projects. In order to verify the reasonableness of costs utilized in the technical study, such costs should be compared to costs from the community budget, capital improvement plan or recently completed projects.	In one community, there was a discrepancy of 24% between school construction costs identified in the technical study and costs identified in the capital improvement plan.
2	**Current Levels of Service Not Properly Documented and/or Applied**	Some communities fail to assess the current levels of service enjoyed by existing residents and do not use the current levels of service as a standard to which new development must be held. As a result, development fee studies may tend to require new development to pay for and operate at higher levels of service than existing residents.	A recent review of impact fees in a community in Virginia revealed that new development was being required to provide a higher level of service for parks than was currently being enjoyed by existing residents. The level of service established as the guideline from which to calculate the park impact fees was 13.8 acres of park land for every 1,000 residents of the county. In reality, the current level of service for park land for the county was found to be 8.8 acres of parkland for every 1,000 county residents.
3	**Funding Offsets Ignored or Improperly Applied**	Technical studies may ignore additional funding sources attributable to new development. Additional funding sources that would offset impact fees must be considered and may include: i) gasoline taxes; ii)sales taxes; iii) user fees; iv) bond repayments (i.e. through property taxes); v) property taxes dedicated to fund capital facilities; and vi) transfer taxes.	A community in Oregon applied a credit for future debt payments that was discounted to arrive at the offset utilized to reduce the fees. The community chose to discount future debt repayments, however, did not discount the cost of infrastructure to be installed in the future. Discounting the future debt repayments and not discounting the infrastructure costs resulted in a decrease in the offsets being applied and consequently an inaccurate increase in the system development charge (impact fee).
4	**Inflated Land and Building Cost Estimates**	Cost estimates for buildings and land utilized in technical studies often do not correspond with construction or land cost indices. Communities may inflate construction and land costs by using cost estimates derived during periods of dramatic growth and increased demand for construction materials and land.	During the boom, Arizona experienced a period of dramatic growth and escalation in land prices. A comparison of land costs in technical studies adopted by an Arizona community revealed an unrealistic increase in the land cost per acre from $76,800 to $370,424 in a four year period and the technical study provided no support for the increase.

	Error	Explanation	Example
5	**Math Errors**	Technical studies often include numerous math errors which affect the final assessed impact fee amount.	One community in Arizona inadvertently doubled the construction cost of a roadway improvement from $25 million to $50 million, resulting in a substantial increase in the impact fees required by the community.
6	**Correcting Existing Deficiencies**	Impact fees must only be established to finance the public infrastructure required to service new development, not to repair or improve the public facilities that provide service to existing residents.	A review of a technical study in one community found that $108 million in sidewalk improvements were to be financed with impact fees in developed areas of the community to make the city compliant with the American with Disabilities Act. This was a clear violation of using impact fees to correct existing deficiencies.
7	**Impact Fee Alternatives Not Considered**	Community officials may be unaware of alternatives that exist to finance public infrastructure. Special taxing districts represent one alternative to the use of impact fees and allow growth to pay for growth. In some states, special taxing districts may be allowed to finance a broader array of eligible infrastructure than the eligible infrastructure that can be financed through development impact fees.	A California community formed a special taxing district, known as a community facilities district (CFD), in response to a public safety funding crisis resulting from rapid growth in residential construction and lagging retail sales. It was determined there would be revenue shortfall in providing police and fire services to accommodate the community's need for the services. Through the use of a CFD, the community was able to ensure the necessary services were provided to its residents while at the same time allowing growth to pay for growth.
8	**State Statute Compliance**	Oftentimes, communities fail to fully conform to the guidelines stipulated in the state enabling impact fee statutes. A review of the requirements of the state statute is important to ensure that they are being met.	An impact fee review for a Montana community found that of the approximately 23 items required by the state statute to be addressed in a technical study, the community failed to fully comply with 6 items.

	Error	Explanation	Example
9	**Misappropriation of Impact Fees**	Impact fees are collected for specific public infrastructure items (e.g. water resources, water transmission lines) and the impact fees can only be spent on the facilities for which the impact fee are collected. Audits of impact fee accounts indicate that jurisdictions often comingle funds and do not spend the impact fees on the infrastructure for which they were collected.	A 2016 audit of a community's impact fee accounts revealed that while the City's impact fee study indicated that the City was supposed to be utilizing 49% of its sewer impact fee collections for water reclamation facilities and 51% for sewer collection lines; the City had expended 91% of its sewer impact fee collections for the water reclamation facilities and only 9% for the collection system.

Revising State Statutes to Address Jurisdictional Overreach

Background

Reviewing impact fee technical studies leads to many questions and concerns related to the assumptions utilized in the technical study. In practice, it is common to meet with the jurisdiction's staff to discuss and hopefully resolve concerns related to the technical study. Often, however, it is not unusual for a jurisdiction to ignore the home building industry's concerns related to a technical study, especially if the changes result in a decrease of impact fees. In such a situation, the builders and/or the local home building association either need to let the issue go unresolved, litigate the issue, or alternatively, revise the state's impact fee enabling legislation.

For example, after years of conflict with Arizona municipalities in relation to the calculation of impact fees, in May 2011, the home builders of Arizona, working through their respective home builders associations (collectively, the HBA), were successful in passing Senate Bill 1525 (SB1525) that made sweeping changes to the way Arizona municipalities must calculate and collect impact fees.

SB1525 was an outgrowth of the HBA attempting to work with Arizona jurisdictions over a number of years to modify their aggressive tactics when estimating impact fees. Some of the challenges that the HBA found when reviewing the jurisdictional impact fee technical studies encompassed all of the challenges outlined in Figure 4.2. More specifically, the HBA was concerned with:

1. Growth paying for non-growth related public improvements (e.g. performing arts centers, town lakes)
2. Construction cost estimates provided by unqualified municipal staff (e.g. a fire chief preparing cost estimates for a fire station).
3. The non-use of service areas to determine levels of service and to estimate infrastructure costs and the impact fees necessary to provide services to new growth at existing service levels.
4. Funding levels of service that are in excess of existing service levels.
5. Challenges with the proportionality of the impact fees versus benefits received.
6. Lack of transparency in the impact fee process.

Key provisions of SB1525

To address the aforementioned challenges with jurisdictional technical studies, SB1525 included the following key provisions:

1. Provided jurisdictions with the ability to continue to collect current impact fee schedules to pay debt service on existing bonds for public improvements either constructed or underway, even if the impact fee would no longer be allowed after the effective date of the Bill, which was January 1, 2012.

2. Introduced the phrase "necessary public services." This is a new definition that narrowed the use of impact fees to address home builder concerns about the improper use of impact fees for general government purposes and certain public facilities, such as public parks over 30 acres or libraries over 10,000 square feet.

3. Limited impact fees to the proportional share of the cost of new infrastructure that is attributable to new development only, and prohibited increasing the level of service that is provided to existing residents.

4. Clarified that offsets against impact fees need only be provided for taxes that are applied to capital costs of infrastructure.

5. Made clear that credits against impact fees are only due when a developer pays for, or is required to provide, infrastructure in an infrastructure-improvements plan (IIP) for which impact fees were assessed.

6. Created new public notice and hearing procedures for assessing, adopting, and amending development fees. Existing fee studies and plans were to be replaced using the new system outlined under SB1525 no later than August 1, 2014, or the municipality would be prohibited from collecting impact fees.

7. Required IIPs to: (i) identify all capital projects that are the subject of impact fees; (ii) disclose existing facilities; (iii) disclose costs to existing facilities not associated with new development; (iv) identify offsets to public infrastructure costs financed by impact fees; and, (v) require construction costs estimates be prepared by Arizona state licensed professionals.

8. Mandated a refund to current property owners of certain impact fees if the infrastructure that is the subject of a impact fee is not built within 10 years or the time identified in the IIP, or 15 years for water and wastewater projects.

9. Required creation of either an advisory committee to provide input on adoption and administration of impact fees or a biennial audit of a municipality's impact fee program.

For more details on SB1525 and to find the complete version of Arizona’s impact fee statute, refer to Appendix D.

Other states with favorable impact fee statutes include Montana and Texas. Montana’s impact fee statute is fairly succinct yet it requires jurisdictions to adhere to common impact fee practices that lead to fair and equitable impact fees. Texas’ statute, while more in depth that Montana’s is fairly comprehensive in its scope. Both the Montana and Texas statutes have been included as part of Appendix D.

Conclusion

Local governments are attracted to impact fees because of their potential to generate revenue at a lower political cost than some other measures such as jurisdictional general obligation bond elections. There is a cost to be paid, however, which is related to the greater complexity and difficulty of setting a truly fair and legal impact fee amount. Unlike taxes which may be set at arbitrary levels, impact fees must be proportional to the actual cost of providing capital facilities. Making these calculations, as the above discussion points out, is neither simple nor straightforward. It is also easy to make mistakes. As a result, the community imposing the fee pays a price in the form of higher administrative costs, consultant fees, and legal fees when the methodology is challenged.

Endnotes

1. For this reason, some state impact fee laws require that the community adopt a capital budget before implementing impact fee legislation.
2. Boe v. Seattle, 66 Wa.2d 152 (Wash. 1965)
3. As reported in *Waukesha County Impact Fee Study* by Barton-Aschman Associates, Inc., Vandewalle & Associates, Whyte Hirschboeck Dudek S.C., Siemon, Larsen & Marsh.
4. The Wisconsin law limits such costs to 10 percent.
5. Emil Malizia and Lucy Gallo, *Proportionate-Share Impact Fees*, (National Association of Home Builders, October 2009)

CHAPTER 5

Administrative Issues

- ***Definition of Capital Costs***
- ***The Use of Impact Fees to Pay Interest Costs***
- ***The Comprehensive Plan and Capital Improvement Plan***
- ***Independent Fee Calculation Study***
- ***When Fees Are Due***
- ***Accounting***
- ***Refunds***
- ***Advisory Panels***
- ***Appeals***
- ***Credits and Reimbursements***
- ***Exemptions***
- ***Grandfathering***
- ***Conclusion***

The local impact fee ordinance is the legal document that establishes a community or county's impact fee program. It should also establish the administrative procedures by which the program will be implemented and cover such issues as when impact fees are paid, how they will be accounted for and spent, independent fee calculation procedures, refunds of fees collected but not spent, administrative appeals, etc. Together with technically correct impact fee calculations, proper administration of the impact fee program is necessary to establish the constitutionality and legality of the impact fee program.

In states where the legislature has enacted impact fee enabling laws, local impact fee ordinances must comply with specific administrative requirements. Whether there are state enabling statutes or not, court decisions may establish requirements that local ordinances must address and adhere to. This chapter will cover administrative aspects of impact fee programs with emphasis on areas where many local ordinances could be improved. Unlike taxes and other revenue sources, local governments do not have as much discretion in the handling of impact fee revenues. Particular care and attention are required in the administration of impact fees to assure fairness and legal sufficiency.

Definition of Capital Costs

The local ordinance should contain a precise definition of the kinds of capital costs that qualify for impact fee funding. If state impact fee laws apply, the local ordinance may

be more restrictive but may not include a broader range of cost items than the state law permits. Generally acceptable cost items include land, buildings, durable equipment and machinery, grading, paving, landscaping, and associated engineering costs. Items that would generally not be considered as capital costs include recurring expenses such as those for consumable supplies, salaries, training, maintenance, repairs, administrative costs, program operating costs, nondurable equipment (less than three years useful life), and the like.

?

Are the allowed uses of impact fees defined in the state enabling statute?

Some items of moderate durability such as vehicles, books, computers, and furniture are questionable as capital expenses. The problem with these items is that they are not fixed in location and are hard to track. For example, computers purchased with impact fee funds and placed in a school serving new development one year may end up in a different school the next year. The portability of these items makes it difficult to assure, or even sometimes to tell, that impact fees are being used to benefit the development that paid the fees.

The Use of Impact Fees to Pay Interest Costs

The use of impact fees to pay the interest portion of debt service for capital facilities is controversial. Unlike taxpayers who pay for capital facilities on the installment plan through bond financing, the impact fee payer pays for his share of needed infrastructure all at once in a lump sum. Many times this payment is made years before the facilities are provided, particularly because the impact fee payer has no control over when facilities are constructed. The impact fee payer starts off with a capital facility principal account balance of zero. In these cases, the impact fee payer is in essence double paying for the infrastructure—first through impact fees, and again through other taxes, i.e. property taxes, which are used to retire debt on the same infrastructure. It is difficult to understand, therefore, how interest on debt can be justified as a capital cost for which impact fees may be expended when the fee payer has paid his share of the principal in full before receiving a building permit. In those situations where a local government has issued ad valorem debt to fund the construction of capital improvements, it is necessary to review the impact fee calculation to determine that a reduction in the impact fee has been made for interest on debt service to avoid the potential of double charging.

The Comprehensive Plan and Capital Improvement Plan

?

Has a comp plan or capital improvement plan been prepared?

In examining an impact fee ordinance, a fundamental question arises as to the source of the assessment of public facility needs which is the basis for the impact fees. The public facility needs assessment should not be a "wish list." The capital facility requirements should be based on a thorough analysis of future growth and appropriate levels of service for each type of facility that establishes a clear and logical connection (rational nexus) between anticipated growth and the type and amount of capital spending that growth will require. It should be emphasized that demonstration of a rational nexus is not merely desirable but is essential to establishing the legality of the ordinance. In some states a report providing the rational nexus is also a statutory requirement (see Chapter 2, pp. 15-18).

The comprehensive plan is the benchmark by which nexus is measured. This plan should include population and land use projections, establish appropriate levels of service for public facilities, examine existing service levels and deficiencies, and identify the capital facilities that will be needed because of new growth.

The capital improvement plan (CIP) or capital budget will attach a cost to the facilities identified in the comprehensive plan and match the facility to an appropriate funding source. The CIP usually covers a five-year period and is updated and approved every year. Other documents may be relied on to provide a public facility needs assessment, but the comprehensive plan and CIP have the advantage and added weight of being officially adopted by the legislative body after a public hearing process.

Some communities have no comprehensive plan (or none that is up-to-date), CIP, or formal capital budgeting process. This has not deterred them from imposing impact fees. Such communities run the risk of having their ordinances overturned because they are not able to document that the fees they charge are rationally related and proportional to the capital costs occasioned by new development.

The impact fee study, capital improvement program, and comprehensive plan must account for differences between the levels-of-service currently provided to existing residents and the levels-of-service proposed for facilities to be financed with impact fees. If current levels-of-service are deemed deficient, then funding sources (other than impact fees) to correct these deficiencies must be identified and detailed to prevent new development from bearing the financial burden of improving service levels for the benefit of existing residents. Annual monitoring is crucial to assure that upgraded levels-of-service enjoyed by existing residents is not financed by impact fee payers, but by other means that assign costs to those who benefit from the improvements.

Independent Fee Calculation Study

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Does the impact fee ordinance specify how the independent fee study must be conducted?

The impact fee ordinance should outline the process for developers and builders to obtain variances that would reduce or eliminate their need to pay impact fees so as to allow flexibility in cases involving special circumstances. A community should also offer a variance process when the applicant believes that the schedule of fees in the ordinance does not reflect the actual monetary impact of a particular project (many already do this). This is usually accomplished through an independent fee calculation study. Under these procedures the applicant commissions and pays for a study which may entitle the applicant to a reduction in impact fees if it convincingly shows that the project will require less public capital expense than assumed in the impact fee study. For example, a road impact fee may be based on trip generation figures from the Institute of Traffic Engineer (ITE) Trip Generation Handbook. An applicant for a convenience store may question the ITE trip rates for this use because they are based on only a few studies and the range of rates varies widely. An independent study of trip generation specifically targeting the

particular market in question may find lower trip generation rates and justify reduced impact fees.

Some ordinances specify exactly how an independent fee study must be conducted and some even require that the government hire a consultant to conduct an independent impact fee study, although the applicant must pay the consultant's fees. In fairness to the applicant, there should be few restrictions on the methods used to conduct the study. The applicant should be free to present their case in his or her own way. In the end the independent fee study must stand or fall on its own merits. A rigorously logical and competent study based on a defensible methodology should be acceptable to any reasonable person. The applicant should also be free to hire the consultant of his choice. Only the applicant has an incentive to control the cost of the study, and the interposition of the government between the applicant and the consultant would make cost control impossible.

When Fees Are Due

The most convenient way to administer an impact fee program is to withhold some permit or approval needed for development or occupancy until the impact fee is paid. Impact fee payment can therefore be made a condition of plat approval, of issuance of a building permit, or of a certificate of occupancy. Probably the most common practice is to make impact fees due at the time the building permit is issued. *From the building industry's point of view, it is preferable for the impact fee amount to be determined at the earliest possible time (i.e. development agreement or plat map recordation) but to fall due and payable at the latest possible time (i.e., certificate of occupancy).*.

The earlier a developer or builder knows what his project's impact fee liability will be, the easier it will be to make adjustments. If this information is known too late, it may be impossible to adjust the product or the price to compete in the marketplace. If the ordinance relies on a schedule of standard impact fee charges, then the information can be obtained at any time. If, however, impact fees are determined on a case-by-case basis, or if calculations of credits are involved, then these calculations should be performed well in advance of the time that the fee amounts are actually due, say, at the time of plat approval.

Because development does not actually cause impacts until a land use commences or a building is occupied, the fees should not be payable until as close to the time that a use or occupancy begins. A more practical reason is that a builder must carry the financial burden of the impact fee from the time of payment until closing, incurring finance charges during this period which are passed on in the form of higher home prices. If impact fees were paid at time of issuance of the certificate of occupancy (if applicable) or at settlement, carrying costs would ordinarily be minimized.

Accounting

Unlike tax revenues, which are deposited in a general fund to be spent with broad discretion, impact fees must be separately accounted for and expended for the specific purposes for which they were collected. Impact fees must not be freely transferred to other accounts to be spent for other purposes. For example, a park impact fee should be credited to a park capital improvement account in a subaccount for the particular park service area where it was collected. Interest earned on impact fee funds should be credited to the proper accounts. In general, impact fees must be spent for the intended purpose within a definite period of time or else be refunded to the fee payer. Therefore, records must be kept of the amounts paid, the identity of the fee payers, the dates the fees are paid into the accounts, and the dates the fees are spent. A frequently established rule is that fees are spent in the same order that they were deposited in the account.

The government has little discretion in disposing of the funds in impact fee accounts. The funds must be spent for the particular capital facilities listed in the capital improvement plan which formed the basis for the fee calculations, or they must be refunded to the fee payers. Over the years, accounting for impact fees and their expenditure has become an essential topic, with the payers of impact fees wanting assurances that impact fees are being expended for their intended purpose. The state of Arizona has even gone so far as to require a biennial audit of the impact fee accounts to ensure that impact fees are being properly utilized.

Refunds

?

Does the state enabling statute require impact fees to be refunded with interest if not used within a reasonable timeframe?

When the government collects an impact fee for a specific purpose but does not spend it for that purpose, it has no choice but to refund the fee because it may not be used for any other purpose. Therefore, all impact fee ordinances should contain refund provisions. Most ordinances permit impact fees to be held for five to ten years before they are eligible to be refunded. We would argue that, since most capital improvement plans cover a five-year period, any impact fees not spent in one five-year capital budget cycle should be refunded. It hardly needs to be mentioned that impact fees should be refunded with interest. The interest rate should be the same as that which the government receives on its long-term deposits.

The fact that a refund is due indicates that the government erred in collecting the impact fee. Therefore, the government has an affirmative obligation to identify the impact fee payers who are due a refund and to make the refunds promptly. Unfortunately, most impact fee ordinances put the burden on the impact fee payers to prove to the government that they are owed refunds. Few ordinances address the issue of unclaimed or undeliverable refunds. These should probably remain in the original impact fee account for the class of infrastructure to which they were originally dedicated rather than be transferred to the general fund.

Some ordinances impose an administrative fee that is deducted from refunds. Given that the government erred in collecting the fee or in failing to spend funds in a timely manner, the fee payer should not be charged for the government's errors. In addition, expending impact fee dollars on administration violates the principle that impact fees must not be used for operating expenses but only for the capital facilities for which they were collected.

Advisory Panels

To ensure fairness in the administration of the impact fee program, oversight should be provided by an independent, objective citizen advisory panel. This is needed because government has a vested interest in the revenue produced by the program and therefore cannot provide objective and unbiased oversight. This panel should be composed of citizens appointed by the legislative body, and at least 40 percent of its members should represent those most affected by the program, including builders, developers, real estate agents, architects, engineers, etc. No elected or hired official of the local government should sit on the panel.

The panel should conduct an annual audit of impact fee accounts, review the administration of the program, and assess impact fee calculations and fee schedules annually. The panel should advise the legislative body on the operation of the impact fee program by publishing an annual report. The advisory panel can also play a role in the appeals process by hearing appeals in the first instance and issuing a nonbinding, advisory opinion.

Participation in an advisory panel provides an important opportunity to voice issues and concerns related to the planning and/or implementation of impact fees.

Appeals

An impact fee payer who believes he or she has been unfairly treated should have access to an appeals process. The ordinance should provide the impact fee payer the opportunity to seek relief by submitting alternative fee calculation studies or other evidence to the agency administering the fee program. The administrative agency's decision could be appealed to the citizen advisory panel or (if established) a hearing examiner or board of administrative appeals. From this point, further appeals could be taken to the local legislative body or, if still unresolved, to the courts. Alternatively, some states are exploring whether disputes over impact fees should be resolved by an arbitration panel that is independent of the courts. The reasoning behind this strategy is that an arbitration panel provides the opportunity to resolve conflict much more quickly and with fewer legal costs than the court system.

Credits and Reimbursements

In most cases the impact fee amount due can be determined from schedules in the ordinance. In some instances, however, adjustments will need to be made on an

individual basis. For example, a developer may agree to provide land or to construct facilities of the type for which impact fees would be charged. In such cases the developer is entitled to receive a credit or reimbursement equal to the market value of the land or facilities provided which is subtracted from his impact fee bill. In cases where the value of land or facilities exceeds the amount of impact fees due, the developer might receive the difference in cash or in the form of transferable credit against future impact fee liabilities. The latter could be limited to apply only to the specific category of fees for which credit was originally granted.

However, many ordinances do not address credits or reimbursements. In all cases, developers and builders should attempt to include language in their development agreements with the community's charging impact fees that provide for credits and/or reimbursements as a safeguard.

Credits should also apply when there is a change in existing land use. For example, if a land use is changed from residential to commercial, there will be an impact due to increased traffic. But the impact fees should not be based on the total number of trips generated by the commercial use but on the *net increase in* trips. The residential trips that were taken off the roads by the change of land use are the basis for the credit.

Sometimes land use changes from a more intense use to a less intense use. The reduction of impact on public infrastructure is thus a benefit to the community. A case can be made that, if developers whose actions increase the impact on infrastructure must pay a fee for that impact, then developers whose actions reduce impacts should receive something (a reverse impact fee) from the government. Government may resist making cash payments in such cases but transferable impact fee credits are certainly appropriate.

Exemptions

For reasons of public policy, government may wish to make some uses exempt from the payment of impact fees. One example of exempt land use might be affordable housing for low- and moderate-income households. It would not be fair, however, to burden new development with increased fees because some categories are exempt. Capital facilities for exempt land uses should be funded from a source of revenue other than impact fees on new development.

Exemptions can raise constitutional concerns about equal protection because some properties are charged impact fees and some are not. A valid public purpose can justify unequal treatment but some communities take the extra step of establishing administrative procedures whereby impact fees are paid on behalf of exempt categories by general revenues passed through a nonprofit organization (see Chapter 2, pp. 15-18).

Grandfathering

When first implementing an impact fee program the question arises about which properties, if any, should be grandfathered, i.e., deemed to have established a prior right to proceed with development without paying impact fees. For example, on the effective date of the impact fee ordinance there may be projects in the approval pipeline which were accepted for processing or for which development agreements have been reached before an impact fee program was either contemplated or announced and whose feasibility relies on financial assumptions that did not include payment of impact fees. Depending on the fee levels, these projects may fail if required to pay impact fees. In fairness, projects accepted for processing before announcement of an impact fee requirement should be grandfathered. Some states such as Texas have strong vesting statutes. Verify state and local laws regarding vesting when addressing grandfathering issues.

Conclusion

Just as an impact fee is difficult to correctly calculate, impact fee programs are difficult to design and administer so that all legal criteria are met. Unlike the administration of programs funded by general revenues, administration of impact fee programs is complicated by the fact that impact fee revenue accounts have many strings attached. Bureaucrats accustomed to exercising broad discretion over general funds may not fully appreciate that they have practically no discretion over the disposition of impact fee revenues. For this reason, it is important that impact fee ordinances be very carefully drafted to provide strict control of impact fee accounts.

CHAPTER 6

Alternatives to Impact Fees

- ***Infrastructure Financing Objectives***
- ***Methods of Financing Infrastructure***
- ***Alternatives to Impact Fees***

The United States is presently confronting an infrastructure crisis of historic proportions. While the problems related to infrastructure finance have grown, the creative application of appropriate financing vehicles has not. Impact fees are viewed by many local communities as an inevitable solution to finance infrastructure due to the declining availability of state, federal, and local general fund revenues. In truth, the United States' use of impact fees is relatively young—and cannot be viewed as a "one size fits all" solution. There are viable alternatives to impact fees that may, in some cases, offer a more fair, equitable, expedient or politically viable mechanism to address a community's infrastructure deficits.

This section outlines the different methods of public and private financing of new infrastructure, describes the equity and efficiency attributes of each, and poses possible alternatives to impact fees.

Infrastructure Financing Objectives

The fundamental purpose of any infrastructure financing vehicle is to enable local governments to deliver infrastructure that is needed to serve new demand. However, every infrastructure financing vehicle presents some tradeoffs as there are multiple and sometimes conflicting objectives that must be weighed as well.

Comparisons of different methods of financing new infrastructure inevitably involve discussions of achieving expediency, equity, economic efficiency, ease of administration, and political acceptability. There is no ideal method for all possible scenarios because each method involves trade-offs between these objectives.[1]

Expediency

Since the basic purpose of infrastructure improvements is to meet the demand of existing and new users, infrastructure improvements should be constructed prior to or concurrent with new development. Achieving this important objective ensures that existing infrastructure systems are not overwhelmed by new demand. Further, this is one objective that all major stakeholders (local governments, residents and homebuilders) can agree is important.

Economic Efficiency

An infrastructure financing vehicle is "economically efficient" when the capacity of public facilities is expanded up to the point where the cost of increasing the capacity to produce one more unit of service (marginal cost) is equal to the cost to the user for using an additional unit of service (price of the service). Efficiency criteria also imply that the method(s) employed to finance new infrastructure promote efficiency in housing production and consumption, and orderly development. It is generally assumed that residential housing is competitively produced and, therefore, infrastructure financing should not unduly distort the decisions of housing consumers regarding the size and type of house desired nor unduly interfere with home builders' methods of production. New development should be located near already developed land to minimize the cost of providing additional public services if near-in locations offer residents similar benefits in terms of comparable housing and other amenities. If new residents have strong preferences for locations away from existing development, are willing to pay the additional cost of being provided with public services, and are charged the additional cost, remote development can be considered orderly and economically efficient.

Equity

Equity considerations in public service provision revolve around two principles: the benefits principle and the ability-to-pay principle (or vertical equity principle). The benefits principle requires that those who benefit from a public service should be the ones who pay for the service. In this regard, the benefits principle is analogous to the efficiency criterion of public service provision. This principle can be best applied to cases where it is important to conserve resources (e.g., water), access to the service is not considered a basic need (e.g., a municipal golf course, performing arts center, equestrian center, town lake, etc.), and it is administratively feasible to charge users directly.

In cases where it is not feasible to charge users directly (e.g., local streets) or the service is considered a basic need (e.g., police and fire protection), the cost of providing for these services has generally been allocated to the members of the community according to their ability to pay. That is, higher-income or wealthier individuals, the most commonly used measures of ability-to-pay, pay more toward the cost of providing public services than do poorer individuals.[2] The decision to finance public services according to ability-to-pay or benefits received is difficult when it is possible to charge users of the service directly but the service is considered to be so important that access to the service cannot be based on ability to pay. Public elementary and secondary education are examples of services that are provided through the tax system (ability-to-pay principle) but could hypothetically be financed by charging registration fees or tuition to families with children in the public school system.

Ease of Administration

All public infrastructure financing solutions require some form of public administration. Potentially, the administration of a financing vehicle that fully meets all of the other objectives might be so administratively burdensome to the local community that it would be impractical. Alternatively, it is conceivable that an infrastructure financing vehicle would be structured to facilitate ease of administration at the cost of expediency, equity, and efficiency.

Political Acceptability

Local communities usually must weigh conflicting public interests when making policy decisions related to infrastructure finance. Sometimes existing residents view their interests and needs as at odds with those of new residents. Policymakers should look to find solutions that offer broad political acceptability, while providing equal protection to minority members of the community such as new entrants.

Methods of Financing Infrastructure

Methods of financing new infrastructure may be classified *as* either public or private. The more traditional or public method consists of the local (or state) government issuing bonds to finance the construction and installation of the infrastructure and then using a portion of the locality's revenues to service the debt (i.e., pay interest to bondholders and amortize the principal). Another method, although not always feasible or desirable, is to charge the users of the infrastructure directly through tolls, user fees, or other charges. In some instances, the fees can be set high enough to cover the debt service and current operating and maintenance costs. Under public financing methods, the entire community pays something toward the use of new capital facilities. Under private financing methods, the cost of providing new capital facilities is borne by those individuals and businesses that benefit directly, or are considered the underlying cause of the need for new capital. Impact fees are one form of private financing of new infrastructure, although in some aspects they are similar to property taxes.[3]

The following provides a description of infrastructure financing methods that may be used as alternatives to impact fees. These descriptions are general in nature. The tools summarized in this chapter may vary widely from state-to-state in terms of their applicability and even the terminology used to describe them.

Table 6.1: Summary of Alternatives to Impact Fees

	Expediency	Efficiency	Equity	Administration	Political Acceptability
Taxes	❍	❍	●	●	❍
General Obligation Bonds	●	❍	●	●	❍
Revenue Bonds	●	❍	●	●	❍
User Fees	●	●	-	❍	-
Special Taxing Districts	●	●	●	-	●
Local Improvement Districts	●	●	●	-	-
Special Service Districts	-	-	-	❍	-
Tax Increment Financing	-	●	●	❍	❍
Private Exactions (Including Impact Fees)	-	-	-	-	-

Key:
❍ Inferior to Impact Fees
- Neutral/Varies
● Superior to Impact Fees

Taxes

Property taxes, general sales taxes, and personal income taxes are traditionally the major sources of revenues for local governments to directly finance additions to infrastructure, or to service general obligation bonds.

Expediency

Property taxes, general sales taxes, and personal income taxes are typically collected in annually recurring increments. These revenue sources are usually dependent on having development in place to provide a tax base. Therefore, these revenue sources do not provide an extremely expedient funding source for infrastructure in advance of new development; however, if sufficient tax revenue sources are available, they can be a more expedient method of constructing public infrastructure than that of impact fees.

Efficiency

Because these tax revenues are derived from the public at large, there is no direct link or sometimes even no link at all, between those who pay for the infrastructure and those who use it. [4]

Although they are considered two distinct forms of revenues, there are instances in which taxes can behave like user fees. For example, special excise taxes such as motor fuels taxes, hotel/motel room occupancy taxes, motor vehicle registration fees, and other specific taxes are similar to user fees if they are dedicated to restricted uses rather than placed in the community's general fund. For example, gasoline taxes and motor vehicle registration fees dedicated to funding transit and road construction and improvements act like user fees insofar as they attempt to charge only the users of certain publicly provided services.

Equity

There are cases where it is not feasible to charge individual users directly for their use of the public service (e.g., police and fire protection, local streets), thus tax financing is the only feasible method of providing these services. In contrast, services such as public schools, libraries, and parks can be financed by charging the users directly for their use of the services, but it is considered poor social policy to deny anyone access to these services because of their inability to pay. For these types of services, equity considerations usually outweigh efficiency considerations, and thus the services and their underlying infrastructure are generally tax-financed.

Administration

Virtually all local and state communities already have the administrative capacity to manage taxes.

Political Acceptability

The use of taxes to fund infrastructure offers important advantages to local communities and homebuilders, when compared to impact fees. Because taxes are generally collected from a broad-base of the citizenry, they are an appropriate source of funding for infrastructure that provides a broad benefit. However, the public is often resistant to new taxes and there are often statutory limitations that cripple a local community's ability to use them to advance major capital programs.

General Obligation Bonds

Another traditional method of financing new public infrastructure is for the local government to issue general obligation (GO) bonds and to service the debt from local general revenue sources. GO bonds are backed by the "full faith and credit" of the issuing locality and serviced by local general revenues, usually tax revenues and sometimes from grants from higher levels of government. GO bondholders are guaranteed that the locality will use any general revenue source available to pay the interest due and to repay principal on maturing bonds. These bonds usually carry the lowest rate of interest because of these guarantees.

Expediency

GO bonds allow a local community to spend money on infrastructure by borrowing against future revenues of the community. This provides communities with an expedient mechanism to implement new infrastructure that will attract new development and thereby increase the overall tax base available to repay bonds in the future.

Efficiency

The efficiency of GO bonds depends on infrastructure being paid for with the bonds providing an equal benefit to everybody paying taxes into the community that issues them. For example, if a city issued GO bonds that were only used to pay for a neighborhood park benefiting a small area, it would not be considered efficient, because residents outside of the area would not be equally responsible for paying debt service but would not receive benefits. Alternatively, if the GO bonds were used to make improvements to a regional or community park that provided an equal benefit to all residents, then their use would be considered efficient.

Equity

In contrast to impact fees, new development is not singled out to pay for infrastructure and, therefore, GO bonds would be considered more equitable if they provide a broad community-wide benefit.

Administration

GO bonds are different from impact fees in that their use is not subject to the same constitutional and statutory protections given to homebuilders. It is not necessary for a community to establish rational nexus or fulfill many of the administrative or technical burdens of impact fees (i.e. an impact fee technical study would not be required). However, most states have adopted limitations on the amount of bonded indebtedness that may be created, and on the types of infrastructure that GO bond debt may be used for.

Political Acceptability

In order for GO bonds to be backed by the "full faith and credit" of the issuing locality, the locality must have sufficient taxing authority to service the debt. To ensure that localities can indeed back their GO bonds, most states restrict the issuance of GO bonds. A frequent restriction imposed by states is limiting the bonded indebtedness of any locality to a set proportion of the locality's assessed property value.

There is great variation among the states concerning which types of local governments must obtain voter approval (e.g., cities, counties, townships, school districts) and the majority needed to obtain approval (i.e., a simple majority or a super majority).

GO bonds can be difficult to implement as they must typically be voted on by the qualified electors of a community. *Since they are backed by the full faith and credit of that community, GO bonds must provide a direct and tangible benefit to existing residents if they are to pass the election.*

GO bonds carry lower interest rates than revenue bonds and are, therefore, the least costly to the locality. Governments are bound by constitutional and statutory imposed limits on the maximum GO bond amounts allowed to be issued. These limits are often expressed as a percentage of the value of the property within the community.[5]

Revenue Bonds

Revenue bonds are an infrastructure financing vehicle that has also traditionally been used by local communities. *Revenue bonds are public indebtedness that is serviced from specific revenue streams such as a certain percentage of the revenues from property taxes, sales taxes, income taxes, or through user fees.* Because the dedicated revenue streams are not as constant or predictable as the total stream of general revenues, they usually carry a higher rate of interest than GO bonds to compensate the bondholders for the higher risk.

Revenue bonds carry fewer restrictions regarding the volume of indebtedness a locality may incur because they are not backed by the "full faith and credit" of the issuing locality. These instruments are more flexible than GO bonds in financing public infrastructure because they can be used to publicly finance capital expenditures when they

are backed by tax revenues and to privately finance capital expenditures when they are backed by user charges, special assessments, tax increments, and, in some instances, impact fees.

Revenue bonds offer similar advantages and disadvantages as GO bonds when compared to impact fees (see above).

User Fees

User fees are direct charges to infrastructure users related to the amount of services used. They can be used for a type of infrastructure that can be metered such as water, sewer, gas, electricity, and telecommunications systems. The most common forms of general user charges for local governments are hospital room charges, school lunch sales, parking fees, and sewer fees.[6]

Expediency

User fees are commonly used in combination with revenue bonds, providing an expedient source of revenues that can be used for infrastructure improvements.

Efficiency

Properly structured, user charges are an efficient method of servicing revenue bonds and paying for the operating and maintenance costs of certain public services. Because users of public services are faced with the cost of using the service, user fees promote more efficient use of the public capital stock than do taxes.[7]

Equity

User charges may violate some people's concept of equity because access to public services is limited by an individual's ability to pay. Despite the possibility of inequitable treatment of some individuals, user charges are appropriate where the cost of administering the system is low relative to total revenues and where conservation of resources and alleviation of congestion is of paramount importance. The use of user charges to service revenue bonds for toll roads, municipal golf courses, water treatment plants, and sewer systems is usually considered appropriate.

Administration

Depending on the service, user fees can be more difficult and costly to administer than impact fees as the local community or other infrastructure operators must regularly meter infrastructure use and collect revenues.

Political Acceptability

The political acceptability of implementing user fees generally depends on the infrastructure type that fees are being proposed. Most citizens will balance questions of efficiency and equity in determining whether to support user fees. As mentioned earlier, primary and secondary school education is seen as too important for children to be subject to user fees when some families may not be able to afford to pay them. Alternatively, most households inherently recognize the appropriateness of paying only for the water or electricity used – giving them the flexibility to use more if they can afford it and protecting them from their neighbors' excessive use.

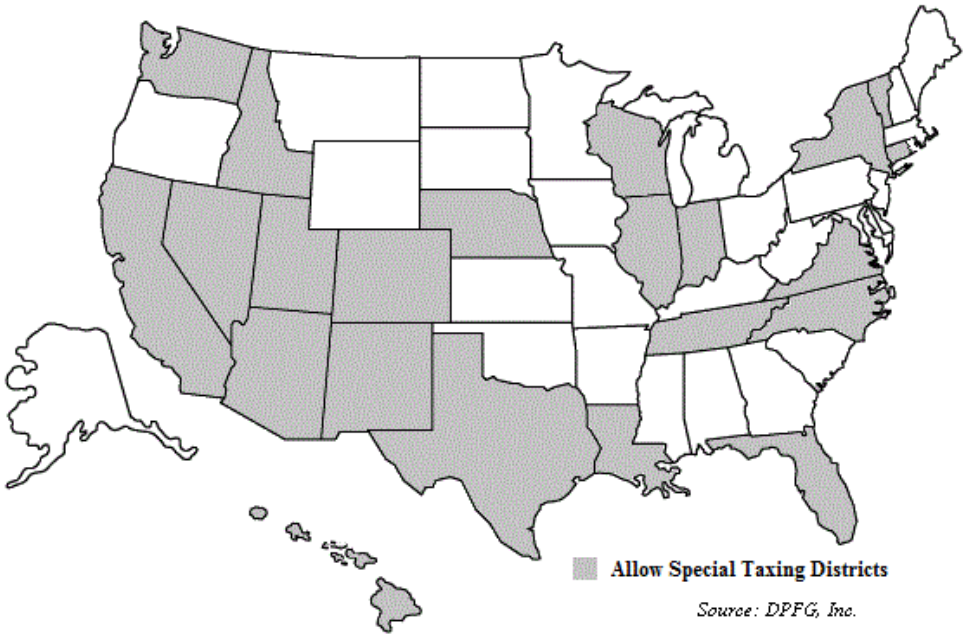
Special Taxing Districts

A special taxing district is typically a separate political subdivision separate and distinct from the county or community that established it. *The sole purpose of special taxing districts is to finance, construct and/or acquire public improvements through the use of tax-exempt bonds, user fees, and property tax levies, special tax levies, etc.* Depending on the state statute, these districts may utilize tax-exempt special assessment bonds, GO bonds, or revenue bonds. Bonds are typically repaid over a 20 to 30 year period by property owners, residing within the boundaries of the special taxing district, making special assessment or ad valorem property tax payments—rather than as upfront impact fees paid by the homebuilder.

Special taxing districts are established over areas which benefit from the public improvements constructed, and usually require a vote or petition of land owners and/or resident electors. Currently, 21 states allow special taxing districts.[8] Examples of special taxing districts include:

- Community Development Districts (Florida)
- Community Facilities Districts (Arizona, California, Hawaii)
- Community Infrastructure Districts (Idaho)
- General Improvement Districts (Nevada)
- Metropolitan Districts (Colorado)
- Municipal Utility Districts (Texas)
- Public Infrastructure Districts (New Mexico, Texas)
- Special Improvement Districts (Nevada)
- Special Service Districts (Utah)

Figure 6.1: States that Allow Special Taxing Districts



Special taxing districts typically require that the developer and local community agree on a General Plan and District Development Agreement. This provides both the developer and local community more flexibility and control over how infrastructure funds are spent – and can help ensure that infrastructure funds result in a direct benefit to development within the district.

Expediency

Special taxing districts provide for more expedient delivery of public infrastructure than impact fees as bonds are issued early in the development process to fund the construction of public improvements in advance of growth. With special taxing districts, the timing of bond issuances is typically coordinated with project development milestones. This feature of special taxing districts reduces the risks of funding excess infrastructure system capacity far in advance of new development.

Efficiency

Special taxing districts are more economically efficient than impact fees because only those public improvements that specifically benefit the residents residing within the boundaries of the special taxing districts can be financed. Additionally, public infrastructure constructed by a special taxing district is funded utilizing tax-exempt bonds that carry a lower cost of financing than that of private debt and/or equity as is typically the case with impact fees, thereby potentially resulting in lower home prices and/or carrying costs for homeowners.

Equity

The use of special taxing districts is considered very equitable as the public improvements being demanded by the residents residing within the boundaries of the special taxing district are being funded and paid for by these residents. Often, impact fees may be utilized to find public improvements for which residents receive little or no perceived benefit.

Administration

Special taxing districts create some administrative challenges because a new political subdivision of the state must be established and organized in order to use this financing vehicle. However, property tax levies or special assessments are typically collected via the county treasurer which poses few administrative challenges. In addition, most states allow special taxing districts to collect a special administrative tax levy to compensate for these costs, thus, special taxing districts become fully self-sustaining.

Special taxing districts are not necessarily more complicated to administer compared to impact fees. For example, it is not necessary to establish level-of-service standards or complete a defensible impact study in order to use this financing vehicle.

Political Acceptability

Special taxing districts are frequently used because they are more acceptable to both the developer and the public at large. *Obligations of a special taxing district are non-contingent liabilities to the local community. Therefore, the local community may be more willing to establish a special taxing district than other mechanisms that may require the community to pledge its full faith and credit.*

In addition, only new and future residents in a special taxing district must pay for the infrastructure constructed or acquired by the district; therefore existing residents would not have to pay higher taxes as a result of new development.

For more information on special purpose taxing districts, go to the NAHB's website and download NAHB's publication at http://www.nahb.org/en/research/nahb-priorities/land-development/special-purpose-taxing-districts.aspx.

Local Improvement Districts

Local Improvement Districts (LIDs) are special purpose districts created by communities and/or counties to allow for the imposition of special assessments or property tax levies in a specific area. These funds may be used to pay for infrastructure that provides a direct benefit to the area or as debt payment for special assessment or GO bonds. Depending on the state, the debt of a LID may be secured by the underlying land within the district or by the full faith and credit of the local community that formed it.

LIDs have many applications. *They are commonly used to complete infrastructure improvements in an area that has fragmented property ownership.* For example, a LID could be formed in a rural community to pave a gravel road that would provide service to several individual farm owners. Alternatively, LIDs have been used to construct streetcar improvements benefiting dozens of individual property owners in an urban community.

Typically, LIDs require a petition or election of property owners within the district before the governing body of the local community can establish them.

They key distinction between a LID and a special taxing district is that LIDs are typically formed and controlled by the community or county in which they are formed, while the establishment of special taxing districts is initiated by property owners and are usually overseen by a governing board.

LIDs generally offer similar advantages and disadvantages when compared to impact fees as special taxing districts. The only key differentiation is in states where the debt of a LID is a contingent liability of the local community, in which case it may be more difficult to attain political acceptance.

Special Service Districts

Another method of financing infrastructure and providing public services is the creation of special service districts. These are autonomous units of government, created by local governments, with the permission of state governments to provide a single or very narrow range of related public services. *The key distinction between special service districts and special taxing districts is that special service districts have an ongoing role in maintaining and operating infrastructure facilities, while special taxing districts typically finance, construct and/or acquire the public improvements and then dedicate the public improvements to other public entities for ongoing operations and maintenance.* Within the limits set by the state enabling provisions, these units of local government can issue debt and levy taxes, or impose user charges to service the debt and to finance current operations without the interference of other local governments. The most common form of independent district is the school district. Other special service districts include mass transit, roads, water supply and treatment, and other public utilities. Special service districts have also been created to provide police and/or fire protection, health care, and housing. In 2007 there were 13,051 independent school districts and 37,381 other special service districts.[9]

The boundaries of special service districts may coincide with the boundaries of the local government that created them, or, in the case of areas with many small local governments, the special district boundaries may include a number of small local units of general governments.

Special service districts may utilize impact fees to raise revenues for new infrastructure construction.

There are vast differences in the types and organizational structures of special service districts. Therefore, it is difficult to make general comparisons between this method of infrastructure financing and impact fees.

Equity

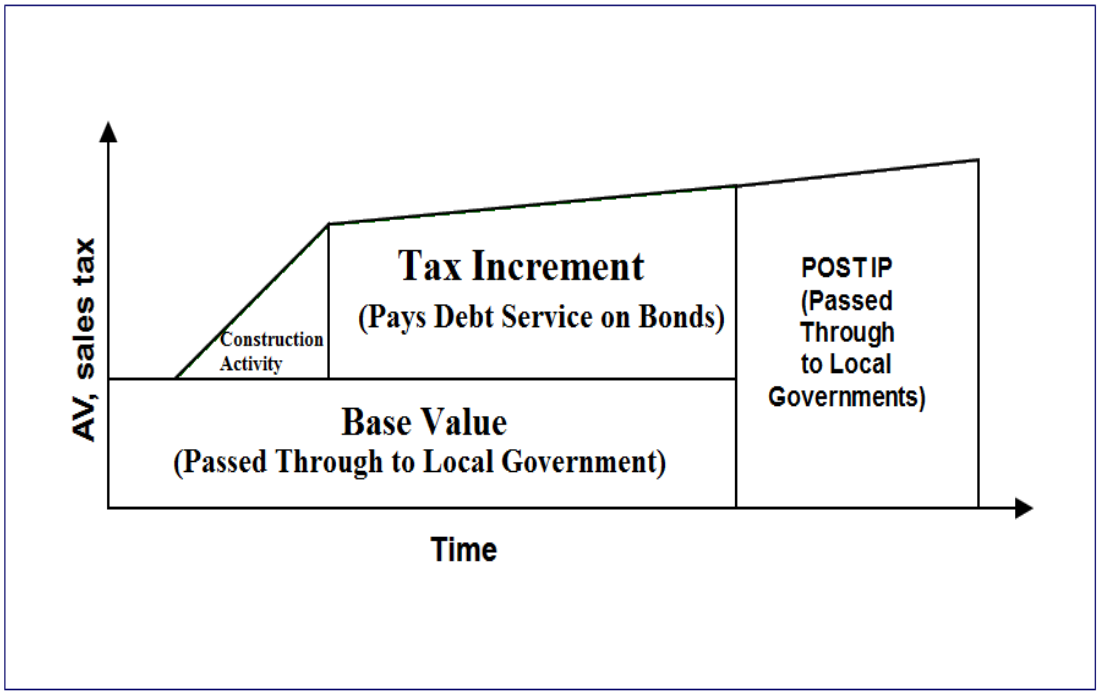
It should be noted, however, that one of the benefits of large special districts is that the financial and other costs associated with rapid population growth and commercial and industrial development are spread over a large population base and geographic area, rather than concentrated in small areas where the burdens of growth can be overwhelming.

Administration

Local governments may, at times, be reluctant to create special service districts because of potential administrative difficulties. The major disadvantage is that creation of too many special service districts fragments decision making and coordination among local governments.

Tax Increment Financing

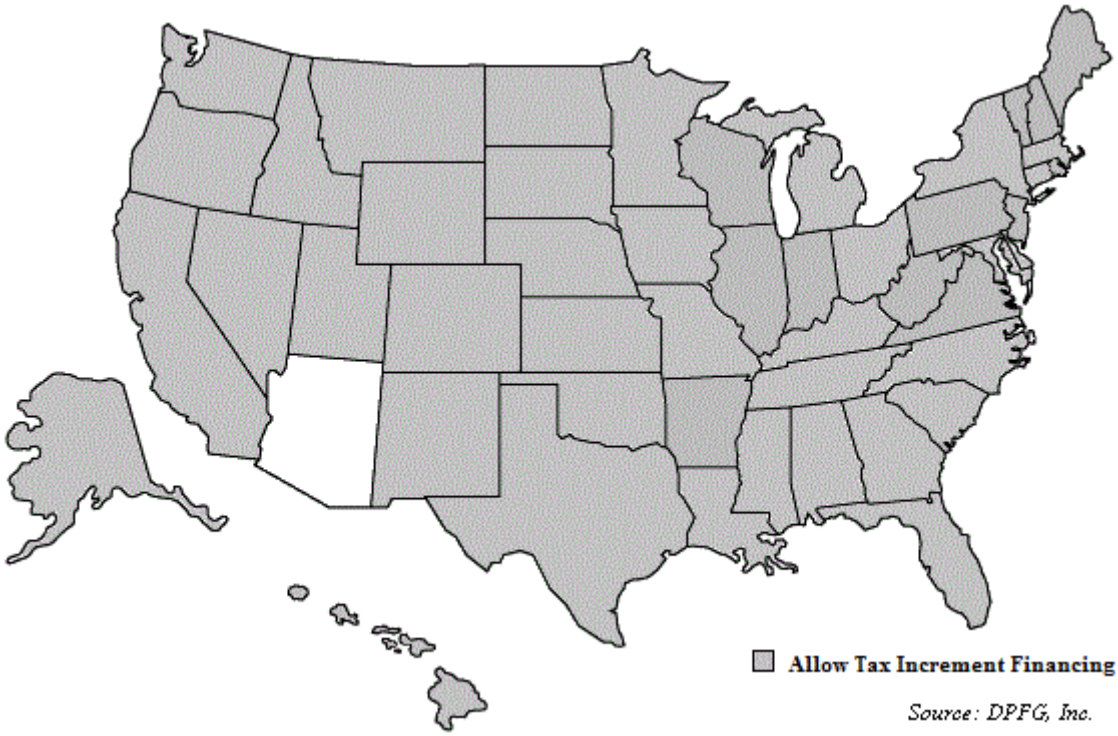
Tax Increment Financing Districts (TIF) capture the tax increment resulting from the increase in the assessed valuation as the result of new development activities or property appreciation for the purpose of making local public infrastructure improvements. The tax increment is the difference between total tax revenues after development and an established "baseline" level of tax revenues prior to development. The tax increment, or a portion of the increment, is diverted from general fund revenues to service revenue bonds issued by the parent community to finance new capital investment and/or provide increased services within the district.[10] Once the tax increment period (IP) has expired, all revenues are returned to the appropriate agencies. A diagram of a typical TIF is shown below:



Most often, TIF is utilized in conjunction with redevelopment and as such boundaries of TIF districts mirror those of redevelopment areas designated by the community. One exception to this rule is New Mexico, which allows the creation of a Tax Increment Development District (TIDD) to be used to capture the incremental sales tax and property tax revenues within a TIDD to finance the construction and/or acquisition of public improvements related to Greenfield development provided the TIDD will create jobs and utilize sustainable development techniques.

Forty-nine states and the District of Columbia allow the use of tax increment financing as a vehicle to finance public infrastructure. Only Arizona does not allow tax increment financing.[11]

Figure 6.2: States that Allow Tax Increment Financing



Expediency

As TIF financing is reliant upon an increase in property tax revenues from new development, TIF financing is on par with that of impact fees related to expediency.

Efficiency

TIF tends to be more efficient than impact fees because those who are bearing the cost of the infrastructure investment, new and current owners in the financing district, have a voice in determining the service levels they want and therefore the amount of new capital needed.

Equity

The use of TIF supports the objective of inter- generational equity. Because tax bases and rates are uniform throughout the community, new entrants and established residents are treated identically.[12] If impact fees are set on a uniform basis, or if impact fees or special assessments are based on physical characteristics of the properties, then TIF would also be superior to those financing mechanisms according to the ability-to-pay principle. However, impact fee financing, may be superior to TIF according to the benefit principle. With impact fee financing, there is a linkage, however tenuous, between the cost to an individual and the benefits received.

Administration

TIF tends to be fairly complicated from an administrative standpoint, because the local government has to complete complex technical studies when establishing a TIF district. Additionally, the local government has to participate in the on-going administration of a district.

Political Acceptability

While TIF is currently allowed in the majority of states, the use of this financing mechanism has increasingly come under political fire. For many, TIF is inexorably linked to the unpopular use of eminent domain—though it need not be. TIF may also spur battles among local units of government, who may object to the establishment of a TIF district because of the fiscal stress caused by reduced tax revenues captured by the district combined with increased service demands. However, this issue has been resolved in some states which require that a fiscal impact analysis is completed in tandem with the TIF financial study. The fiscal impact analysis is completed to identify what mitigation measures would be necessary to ensure that public services will be fully funded in the future.

Private Exactions

The most direct forms of private infrastructure finance are locally imposed exactions on builders and developers, either to directly construct and install infrastructure, or to dedicate land for the construction of infrastructure. Impact fees are a form of exaction in which the developer pays a fee to the locality and the locality uses the proceeds to construct and install the infrastructure. The builder or developer must borrow to finance land development, construction, and new capital facilities. The developers or builders will, to the extent possible, pass all costs forward to the ultimate buyer or backward to landowners. As a result of the added costs of developer-financed infrastructure, the ultimate purchaser must put up more cash for closing and borrow more to purchase the property (see Chapter 3).

Expediency

Private exactions may or may not be expedient depending on how they are implemented. A local community will often require an exaction to be complete in advance of new development in order to ensure that adequate facilities are available. Alternatively, impact fees are technically a form of exaction and are not expedient given that they are collected in arrears.

Efficiency

Private financing of infrastructure is more costly than public financing because private borrowers almost invariably bear higher interest rates than public borrowers, especially if the public authority issues debt with interest that is exempt from federal

(and possibly state) income taxes. Because mortgage interest payments are deductible from federal, and possibly state, income taxes, the difference in *effective* interest rates paid by private borrowers and public borrowers is not as great as the difference in nominal interest rates. However, not all private borrowers can take full advantage of the mortgage interest deduction; itemized deductions for mortgage interest are of full value only if other tax deductions, including real estate property taxes, are at least equal to the standard deduction ($12,600 for married couples filing joint returns and $6,300 for single individuals in 2016).[13]

Despite the higher cost of private borrowing versus public borrowing, it may be argued that exactions on developers and builders are efficient. Downing and McCaleb (1987, p. 53) argue that sophisticated exactions (including impact fees) *do* possess the attributes of efficient prices because those who are considered to be the proximate cause of the need for new infrastructure, or are the primary beneficiaries, pay the cost of the facilities.[14] Conversely, Snyder and Stegman (1986, p. 31) argue that development fees and other forms of private financing of public capital facilities, where exclusion is possible, promote inefficiency in the use of public facilities by reducing user fees and charges to cover only short-run costs rather than long-run costs. Furthermore, Snyder and Stegman argue that development fees *do not* promote efficiency because the ultimate payers do not determine what they pay for, or the size and amount of infrastructure that is to be built.[15] In addition, if impact fees are set on a uniform basis and therefore do not reflect the actual cost to the locality for providing public services, the fees may encourage inefficient development if new development occurs at locations that are not near existing development.[16] Impact fees that are based on the number of bedrooms, acreage, or front-footage are another source of inefficiency in that they force builders, in their attempt to minimize fees, to produce housing units that are not the ones most desired by home buyers.[17]

Equity

A key issue with exactions is that they are often implemented by local communities on an ad-hoc basis. Further, exactions may violate the ability-to-pay concept of equity. Lower-income households pay more, relative to their income, than do higher-income households for the same capital facilities. Exactions are particularly burdensome to buyers of low-income households if they are used to finance infrastructure for roads, police and fire protection, schools, libraries, parks, or other public services from which it is either difficult or impossible to exclude anyone, or which are deemed so socially important that no one should be excluded on the basis of the ability-to-pay.

Private financing of new infrastructure and public financing of replacement infrastructure, often based on ability to pay, involve a double standard in the treatment of new entrants compared to the treatment of established residents. Although current residents may believe it is fair to force new entrants to privately finance new infrastructure and to publicly finance replacement infrastructure, there may be a downside for current residents if new entrants can thwart moves to publicly finance

replacement infrastructure (e.g., refurbishing and modernizing older schools) that primarily benefit established residents.[18]

Administration

The use of exactions, including impact fees, can be challenging for local communities to administer. Specifically, all development projects have different impacts on public infrastructure systems. Administering a fair and balanced exaction or impact fee program is difficult when there are so many nuances in various development projects. Chapter 5 of this handbook includes a detailed description of the challenges related to impact fee programs, which can be broadly understood to relate to exactions in general.

Political Acceptability

While the use of exactions and impact fees may be more politically acceptable than other forms of infrastructure financing to existing residents—it does pose some complicated political questions for local communities regarding their fairness to new residents. Chapter 7 of this Handbook includes a detailed discussion of political issues associated with impact fees, which can be understood to broadly address all forms of exactions.

Endnotes

1. A complete presentation of equity, efficiency, administrative, and political criteria for infrastructure finance can be found in Snyder and Stegman, *Paying for Growth,* pp. 27-38.
2. Wealth is usually measured by the amount of assessed real property owned by an individual.
3. Paul P. Downing and Thomas S. McCaleb, "The Economics of Development Exactions," in Nelson, ed., *Development Exactions,* 1988, p. 53, *op. cit.*
4. T.R. Lakshmanan, P. Nijkamp, E.T. Verhoef and P. Rietveld, *Benefits and Costs of Transport, Classification, Methodologies and Policies,* 2001.
5. David R. Berman, *Local Government and the States: Autonomy, Politics, and Policy*, 2003.
6. U.S. Bureau of the Census, *Total State and Local Government Finances in 1992-93,* pp. 1, 2.
7. Thomas P. Snyder and Michael A Stegman, 1986, p. 31.
8. National Association of Home Builders, *Infrastructure Series: Part II: Infrastructure Finance, Does your state encourage innovation?*
9. U.S. Bureau of the Census, *Statistical Abstract of the United States 2007*.
10. Opponents of tax increment financing argue that these programs may require cost subsidization from taxpayers outside of the tax increment district. David B. Lawrence and Susan C. Stephenson, "The Economics and Politics of Tax Increment Financing," *Growth and Change* (Winter 1995), p. 106.
11. National Association of Home Builders, *Infrastructure Series: Part II: Infrastructure Finance, Does your state encourage innovation?*
12. National League of Cities, *Financing Infrastructure: Innovations at the Local Level* (Washington, DC, 1987).

13. Commerce Clearing House, 1996 *U.S. Master Tax Guide,* p. 85. For a discussion of the interaction between the standard deduction and the mortgage interest deduction, see Paul Emrath, "Cost of Finance and Taxes for New and Old Homes," *Housing Economics* (September 1993), pp. 5-8. Internal Revenue Service for 2016 Standard Deduction Amounts.
14. Paul P. Downing and Thomas S. McCaleb, "The Economics of Development Exactions," in Nelson, ed., *Development Exactions,* 1987.
15. Thomas P. Snyder and Michael A. Stegman, *op. cit.*
16. Ibid.
17. Ibid.
18. Thomas P. Snyder and Michael A. Stegman, *op. cit.,* p. 30.

CHAPTER 7

Public Affairs Strategies

- ***Arguments and Strategies to be Utilized to Defeat Fee Proposals***
- ***What to do if an Impact Fee Seems Inevitable***
- ***Groups Likely to Support the Home Builders Association Position***
- ***Groups Likely to Oppose the Home Builders Association Position***

A sound public affairs strategy which is carried out in a successful manner will benefit the home builders association by influencing legislation and public actions. As the implementation of impact fees and impact fee increases are typically the result of political rather than economic motivations, home builder associations may successfully address these issues through a solid public affairs strategy.

HBAs must adopt a strategy to influence impact fee public policy. If impact fees are not currently being discussed in your community, it may only be a matter of time before they are considered as a method to finance new or expand existing infrastructure. Impact fee use has steadily increased across the country since originating in Florida and California decades ago and impact fee enabling legislation has now been adopted in 28 states.

Chapter 7 focuses on identifying key policy issues that should be considered by governments when creating or increasing impact fees. The chapter outlines arguments and strategies that rely on these policy issues and have been successful in defeating or modifying impact fees.

Additionally, a list of provisions HBAs should urge governments to consider for inclusion in impact fee legislation and ordinances is included in this chapter. The protections and provisions found within impact fee ordinances play an important role in ensuring that the money collected for a purpose is actually spent on that project or service. Certain provisions, if included in the impact fee legislation or ordinance, not only protect the home builder but also the home buyer, local government and existing tax payers. Examples of what issues should be considered in an impact fee have stature has been included as Appendix C. Arizona's impact fee statute has been included as Appendix D. The Arizona Statute was updated in 2011 to address the continued challenges that the Arizona HBAs were experiencing with jurisdictional technical studies and the public sector's reluctance to address the HBA's concerns. The resulting legislation is one of the most comprehensive impact fee statutes in the country and one that other HBAs may want to consider utilizing in whole or in part to prevent jurisdictional overreach. The Montana and Texas impact fee statutes have also been included as additional impact fee statutes that provide many of the checks noted within this publication to prevent jurisdictional abuses.

As HBAs work to defeat or negotiate an impact fee, it is always best to form a coalition which supports the HBA's position. A sound strategy may include building a coalition with mutual interest groups, e.g., business, labor, civil rights, and housing organizations. Prepare materials that may be provided to the media and other key decision makers that detail the economic and social costs of impact fees. Be sure to meet with the media throughout the process to advance their understanding of this financing mechanism.

Arguments and Strategies to Utilize to Defeat Fee Proposals

Impact fees are proposed in a community for many reasons. A HBA's public affairs strategy should be dynamic enough to address the varied reasons for using the impact fee as a tool to finance infrastructure and public services.

Cost of Infrastructure

Many communities simply lack the funds or think they lack the funds to finance infrastructure improvements and expand services. Often, the lack of financing is caused by either a cap imposed upon property taxes or voter resistance to increased taxes. In these cases, it is essential to identify the economic sensitivity of impact fees as an infrastructure finance mechanism. And HBAs should always examine their community's budget to check the validity of the budget shortfall or limitations. Many local jurisdictions try to make up for seriously deferred maintenance of existing infrastructure by charging fees to new growth. HBA's should be prepared to challenge this practice when encountered as discussed in earlier chapters.

The cyclical nature of housing construction makes impact fees an unreliable revenue source. The amount of revenue generated through assessment and collection of impact fees may fluctuate dramatically during times of high and low growth, making fiscal planning based on impact fee revenues unpredictable and difficult. Additionally, the goal of raising additional revenue through impact fees may be attained only in the short term in a growing community. The use of impact fees may result in stifled economic development and limited growth.

If growth is limited by impact fees, the direct and indirect benefits of growth—such as a larger property tax base, increased employment opportunities, increased disposable income, increased sales and other tax revenues—will also be limited. And in regions where communities are competing for growth, impact fees can push to the growth to other areas if the fees are high enough and the market is sensitive.

In communities that are suffering from declining new home construction, impact fees are a naïve way to address the community's infrastructure needs. To the extent that the community is financing the construction of infrastructure through bonds supported by impact fees, the community will not likely receive the funds necessary to retire the bonds as impact fee financing depends on a reliable source of revenue.

If the cost to construct public infrastructure or provide public services is a challenge faced in a community then the following arguments may be useful:

- Ensure the community has explored all of the alternative financing mechanisms available such as its statutory bonding capacity, special taxing districts, tax increment financing, public/private partnerships, grants, etc. Information relating to infrastructure finance solutions may be found in the NAHB's three part series available at www.nahb.org/infrastructurefinance. These publications are:

    - *Building for Tomorrow: Innovative Infrastructure Solutions* (2003): This is a 32-page report that explains more than 20 innovative financing and delivery mechanisms and presents case studies on how those tools have been applied successfully.
    - *Infrastructure Solutions—Best Practices from Results-Oriented States* (2007), features research from the NCSL regarding the best state enabling legislation for some of 11 infrastructure finance alternatives. NCSL looked at statutory language from all the states authorizing the use of these finance tools and highlighted the best-written laws – those that showed the most promise for helping local governments make effective use of those tools.
    - *Infrastructure Finance: Does Your State Encourage Innovation?* (Updated 2012) features a matrix of all 50 states, showing which states authorize the use of the 12 most commonly used infrastructure finance tools discussed in *Building for Tomorrow*. It highlights a more in-depth research report written by the National Conference of State Legislatures (NCSL) that summarizes state enabling authority for these tools and includes links to the relevant statutes.
    - *An Overview of Special Purpose Taxing Districts (2014)* features an in-depth study of the benefits of special purpose taxing districts and how the districts may be used to finance public infrastructure in advance of growth.

- Identify the economic sensitivity of impact fees as an infrastructure financing mechanism.

- Describe the long term impacts on housing affordability and economic development (more detail under "slow growth or no growth").

Slow Growth or No Growth

Oftentimes communities propose impact fees aiming to discourage or prevent growth. Housing affordability is not considered an issue when no-growth is the goal as the policy makers intend to create barriers to housing construction.

If the slow growth or no growth argument is at the forefront of impact fee issues, or even masquerading behind them, then an HBA should consider making the following points:

- **Create a constituency for affordable housing.** Note that impact fees are included within the sale price of new homes and thus are amortized over the life of the mortgage. Amortizing impact fees significantly adds to the cost of the home, which decreases the ability of many people to purchase a home. For example, as a point of reference, a $6,000 impact fee on a $275,000 home, with a 4.50 percent 30-year mortgage, increases the total closing and financing costs of the home by $8,220. If fewer people can afford to buy new homes, then fewer new homes will be built; if housing is limited, so too will be the property tax base—and as such impact fee revenues. Please refer back to Chapter 3 for more information on NAHB's priced-out model.

- **Impact fees place a disproportionate burden on lower-income households.** For example, suppose a household with an annual income of $48,000 is buying a $200,000 house with a $180,000 mortgage at 5.0 percent. A $5,000 increase in house price due to an impact fee would require an increase of 2.5 percent in down payment and $325 more annually in house payments, which is 0.7 percent of the family's income. In a household with an income of $69,000 buying a $300,000 house with the same mortgage terms, the same rise in price would cause the same increase in annual payments, an increase equaling only 0.5 percent of that family's income.

- **Argue the equity issue.** Costs for the construction of infrastructure has traditionally been paid from general revenues of the community. When a local government is benefiting from a budget surplus, there is little justification for turning to new revenue sources such as impact fees. Why should a builder or home buyer pay for the basic needs of a community when the community itself can afford them?

- **Check the motives of the impact fee proponents.** Ensure impact fees are being assessed as a means of raising needed revenue and not for exclusionary purposes.

- **Identify the negative effect impact fees will have on a community.** If your community is competing for new or expanded businesses with neighboring communities that have no such fees, the economic development and growth will simply move next door.

- ***Impact fees not only lead to an increase in the price of new homes but also an increase in the prices of existing homes, as both new and existing homes are close substitutes.*** If the cost for new homes is more expensive than existing homes, demand for existing homes will increase, resulting in an increase in existing home prices. The increase in home values will make housing less

affordable for existing homes at the expense of buyers of both new and existing homes.

- **Advocate paying the impact fee at the latest point in the construction process.** The later the impact fee is paid, the lower the impact on the housing price. One suggestion is to pay the impact fee upon the receipt of the certificate of occupancy. Alternatively, in some communities, impact fees have been financed as an annual special assessment amortized over a twenty year period.

Political Expediency/No New Taxes

Elected community officials may utilize impact fees as a method to address infrastructure issues without raising taxes. Due to the long build-out schedule for constructing public infrastructure, it is incumbent upon successors to manage the tax decisions made by current elected community officials if impact fee revenues fail to meet growth projections. Residents of new construction are a constituency of the future and are often only represented by the HBA.

For communities utilizing impact fees as a way to hide the real costs of infrastructure, you may want to influence community officials with the following arguments:

- **Provide alternative mechanisms for the financing of public infrastructure.** This is outlined in more detail in Chapter 6.

- ***Verify that impact fees represent only the actual costs of providing public services to the new home buyer.*** *It is also important to make sure that the community is capable of maintaining the facility (or service) after the facility is constructed.* In the future, a fiscal crisis may occur and the community may find that revenue funds are insufficient to operate and maintain the facilities.

- **Argue that a majority of new homes are purchased by the existing residents who have already been financing infrastructure through property taxes, etc.** These new home owners are already living in the community and create no new burden on the public infrastructure of the community.

Equity Issue/Growth Pays for Itself

In many communities, elected community officials and residents believe that it is fair for new growth to pay for itself. If a community believes that growth should always pay its own way, the following arguments for opposing impact fees may be helpful:

- **Impact fees imposed for public infrastructure services that benefit and serve both new and existing residents are discriminatory if they are levied only on new homeowners.** Alternative sources of funding, such as gasoline taxes to pay for roads, are available and more fairly distribute the cost of services among those who use them.

- **When impact fees are designated to pay for the construction of future planned facilities, the buyer is paying not just for available facilities, but also for projected infrastructure**. Impact fees are often collected from a constituency that may not enjoy the benefits for which the impact fee paid. The average turnover in home ownership is six years. Many times it takes longer than six years to build infrastructure and develop services.

- **Make sure that impact fees earmarked for building certain infrastructure are used for that purpose and in the community or service area they were intended to support.** Impact fee monies should not be commingled with the funds in the general fund, and to the extent that impact fees are not expended for their intended use over a reasonable time period, they should be returned to the homeowners.

- ***Impact fees may result in "double taxation" of buyers of new housing as new residents may be charged twice for a portion of the public infrastructure; once through the payment of an impact fee and second through the repayment of bonds.***

What to do if an Impact Fee Seems Inevitable

If it is apparent that an impact fee proposal will be approved, there are several options that may minimize the effect of the fees and ensure they are being spent for the purpose they were collected:

- Work to establish specific procedures for enacting local fee ordinances, including requirements for public hearings and legal notice.

- Suggest alternative mechanisms for the financing of public infrastructure (Chapter 6).

- Review the impact fee study to ensure that: (i) the impact fee study is compliant with the requirements of the impact fee statute; (ii) the impact fee study is mathematically accurate; (iii) the impact fee study is in agreement with supporting documents and studies (e.g. CIP); (iv) the impact fee study allocated costs to multiple service areas; (v) the impact fee study is supported by reasonable growth estimates; (vi) construction costs are provided by licensed professionals; (vii) impact fees are reduced by funding offsets; and (viii) the impact fee study is based on existing levels of service..

- Provide economic data to demonstrate the influence that impact fees have on housing affordability in an effort to lower the impact fee and/or transfer the timing of the payment of the impact fee further in the development and building process.

- *Conduct a detailed legal and technical review of the ordinance or statute especially the portion that applies to the rational nexus test. Ensure the assessment of the impact fees conforms to the requirements of the ordinance or statute.* NAHB's Land Use & Design Department provides technical and policy assistance through its ordinance reviews. NAHB's Legal Services can provide assistance and advice on legal issues with the ordinance or statute.

- In the case where a state does not currently regulate impact fees, make sure the community has established administrative guidelines. Many communities fail to comply with the administrative requirements and accounting that must occur when utilizing impact fees as a method of financing public infrastructure.

- HBAs in states with adopted impact fee statutes must be knowledgeable of the provisions contained therein. Most state statutes have specific requirements for communities to follow when adopting impact fees. Make sure the local ordinance is in compliance with the requirements of the impact fee statute. In communities where no state statute has been adopted, confirm the impact fee is in line with established criteria as outlined in other chapters of this handbook.

- Certify that the community commits to conducting an annual capital project update. Doing so will help eliminate completed projects from the impact fee schedule, add new projects if needed and document expenditures for constructed facilities. The purpose of the annual capital project update is to ensure the home buyer receives the infrastructure and services for which the impact fees were paid and that the community is both planning ahead and being accountable.

- *Ensure the ordinance requires the community to perform a periodic update of the impact fee program. Provisions in many state statutes have a schedule for periodic impact fee program updates. The goal of these updates is to make sure that the plans and fees for new infrastructure and services are realistic and accurately represent the burden imposed by new development.*

- As an integral component of the fee program update, communities must also include a timeframe to update development projections. A sound ordinance should require the community to regularly update the base year and planning horizon as well as provide a new analysis of facility standards and needs (since these can change over time) and, most importantly, provide updated and realistic facility costs. Material cost fluctuations may greatly impact the construction costs of capital facilities.

- Ensure that credits and reimbursements are part of a consistent documentation process. HBAs can add significant value to the building and development community in this field. It is prudent to ensure the community is required to adequately track fee payments and projects so that in the event impact fee funds are not spent, refunds can be made. Credits should also be given in the case of changes in land use that reduce demands on infrastructure.

- Communities assessing impact fees must properly account for the fees received from new development. Ensure the community ordinance requires funds for fee programs to be deposited into separate interest-bearing accounts. The accounts typically should also use multiple categories for fees and projects. And a public accounting of how the funds were spent needs to be a requirement for the local jurisdiction.

- Push to have impact fees paid as late in the homebuilding process as possible, such as the receipt of the certificate of occupancy

- Suggest a gradual phasing of the bill's fee requirements. Phasing in the assessment of impact fees results in a less abrupt change in the functioning of builders, developers, and consumers.

Groups Likely to Support the Home Builders Association Position

As stated earlier, HBAs have a stronger ability to influence impact fee legislation when part of a broader coalition. As such, it is important to garner support through communication with other organizations early on regarding the provisions of the impact fee proposal. It may also be advantageous to proactively communicate with business clubs, labor, housing, civil rights, and property owner groups. Local commercial and residential homebuilders and developers may also be a source of support.

Enlisting the support of recent and potential new home buyers will likely play an important role in challenging impact fee proposals. Home buyers elect the officials of the governing body and may represent a powerful source of support as decreasing the affordability of housing will likely be important to home buyers.

Maintain an open line of communication with support groups and ensure that efforts to challenge impact fee proposals are coordinated. Effectively challenging impact fee proposals requires a consistent coordination of efforts between supportive groups.

Groups Likely to Oppose the Home Builders Association Position

While some groups will support the position of HBAs, there will also be groups in support of the impact fee proposals. Communicating with groups that may not share the same perspective on impact fees can be an effective way to learn how to formulate a strategy and arguments that would be tenable to all parties and for the HBA to be viewed as an effective advocate for rational development.

As impact fees represent an additional revenue source to communities, the imposition or increase of impact fees will likely be supported by community officials. It becomes increasingly difficult to effectively influence the implementation of impact fees as the capital budgeting and planning processes progress. Whenever possible, early

involvement in the budgeting and capital planning processes of the community will provide the best opportunity for HBAs to influence the impact fees being proposed.

It is likely that in an effort to discourage or limit community growth, antidevelopment organizations and groups may strongly oppose the efforts of HBAs. It is prudent to stay abreast of the current events of these groups and communicate periodically with the leaders of antidevelopment groups.

Conclusion

Developing a political and public relations strategy to affect an impact fee proposal is essential to building broad-based support in the community that will give additional weight to the building industry's position. Garnering the support of community organizations, professional groups and potential home buyers early in the capital budgeting and planning process will provide a better opportunity to effectively influence the implementation of the proposed impact fees. Following public hearings and the adoption of the fee ordinance, successfully challenging the impact fees without litigation becomes increasingly difficult.

APPENDICES

A Case Studies

B State Impact Fee Enabling Legislation Summary Chart

C General Impact Fee Statute Considerations

D Arizona, Montana, and Texas Impact Fee Statutes

E Resources

APPENDIX A

Case Studies

Home Builders Associations (HBAs) throughout the United States continue to experience challenges related to jurisdictions' implementation of development impact fees. In order to show case the actions a number of HBAs have taken in relation to such challenges, case studies have been included that include dealing with issues of: (i) changing impact fee consultants; (ii) statutory authority to implement Fees; (iii) the timed payment of Fees; (iv) the misappropriation of Fees; and (v) levels of service. Although some of the case studies may be dated, the logic and approach of the actions taken by the HBAs is still relevant today.

I. CHANGING IMPACT FEE CONSULTANTS AND UNINTENDED CONSEQUENCES

(Note: For political sensitivity, the names of the county and the consultants in question have been omitted.)

BACKGROUND

ABC County's (County) Impact Fee Ordinance (Ordinance) requires impact fees to be used only for capital facility costs for which the impact fees are levied and that add capacity needed to serve new development. Furthermore, the Ordinance requires the County to encumber the impact fees six years from the date the impact fees are paid and spend the impact fee within nine years from the date the fees are paid. Otherwise, the fee payer is entitled to a refund.

The County's impact fees have been updated on a biennial basis since 1994. Consultant A prepared the 2012 update and for many years prior, and Consultant B prepared the 2014 update. Consultant A and Consultant B are credentialed impact fee consulting firms. Both firms calculated the fees using the consumption-based methodology.

Although the overall methodology did not change, the 2014 update recommended a $15,888 (or 384 percent) increase in impact fees for a single-family detached, 2,000 square foot home. This case study explores how underlying approaches used by impact fee consultants can affect the fee calculations.

2012 and 2014 Impact Fee Comparison

Single Family (Detached) 2,000 sq ft	2012	2014	$ Increase	% Increase
Schools	$ 1,964	$ 15,305	$ 13,341	679%
Parks & Recreation	905	2,418	1,513	167%
Public Libraries	309	289	(20)	-6%
Fire & Rescue	-	324	324	N/A
Law Enforcement	135	192	57	42%
Public Buildings	826	1,499	673	81%
Total	$ 4,139	$ 20,027	$ 15,888	384%

Schools

As described in the 2012 update, the School District has been implementing an aggressive capital improvement program resulting in marginal additions to existing schools rather than constructing new schools to meet enrollment demand. No capacity-adding projects were included in the School District's current Five-Year Work Plan.

The capital cost per student station of $11,170 in the 2012 update was based on the marginal cost of expanding capacity in existing schools. In the 2014 update, the capital cost per student station of $39,846 was assumed, which reflects the cost of building new schools.

Differences in the application of the consumption-based (e.g. incremental expansion) methodology and interpretation of the County's Ordinance in determining the capital cost per student station were key factors in the $13,341 increase in school impact fees.

Parks and Recreation

In the 2012 Study, the cost of park land was excluded from the Parks and Recreation impact fee calculation because at that time and for the foreseeable future, the County had no plans to increase its inventory of park land. Instead, the County will be developing park land that is already in inventory.

The 2014 Study included calculations demonstrating how the County's achieved level of service for park land exceeded the adopted level of service, consistent with findings in the 2012 Study. The County still has no plans to acquire additional park land. However, the 2014 Study included the cost of park land, at achieved levels of service, in the cost component of the impact fee calculation. Park land accounts for 52 percent of the 2014 impact fee cost component, with park land improvements and facilities accounting for the remainder.

Differences in the application of the consumption-based methodology and interpretation of the County's Ordinance in determining the capital cost for parks and recreation were key factors in the $1,513 increase in parks and recreation impact fees.

Fire and Rescue

The 2012 Study recommended the Fire and Rescue Fee be set at zero as the County's Capital Improvement Plan (CIP) did not propose any capacity-adding improvements. However, the 2014 Study noted three new stations have been included in the current CIP, so a Fire and Rescue impact fee was recommended for adoption.

Initially, the 2014 Study included a $14.6 million Training and Administrative Facility in the land and buildings inventory used in calculating the cost component of the fee. However at the County's request, the cost of this facility was later removed, as there is no need for a similar facility in the future.

Law Enforcement

The 2012 Study allocated capital costs on a per call basis[2] and used the existing inventory of vehicles and equipment in determining the cost component of the law enforcement impact fee. The 2014 Study allocated costs on a functional population basis and used a flat capital cost per officer based on information obtained from other jurisdictions. The level of service in the 2014 Study was based on the number of officers per 1,000 functional residents.

A comparison of the two approaches, calculated on a per capita basis, highlights certain anomalies between the two approaches. For example, the overall capital cost was $10.8 million less in 2014 compared to 2012, and the service area population increased by 86,318 persons (or 12 percent) from 2012 to 2014. In total, the per capita cost declined by $25.50 per person over the biennial period.

2012 and 2014 Law Enforcement Capital Cost Comparison

Description		Figure
2014 Law Enforcement Impact Fee Study		
Service Area Functional Population		699,882
Cost per Functional Resident	$	106.50
Total Equipment and Vehicle Value	$	74,537,433
Service Area Peak Population		818,439
Per Capita Cost	$	91.07
2012 Law Enforcement Impact Fee Study		
Total Equipment and Vehicle Value	$	85,341,771
Unincorporated Peak Population Served		732,121
Per Capita Cost	$	116.57

In spite of the decreases noted above, the 2014 Law Enforcement impact fee increased significantly across all land uses, as illustrated below.

- Office (50,000 sq. ft. and less) increased 1,325 percent
- Retail (50,000 sq. ft. and less) increased 335 percent
- Fast Food Restaurant increased 1,480 percent

Persons per housing unit increased slightly in 2014, which affected the residential land use fees, but different approaches in calculating functional population in the 2012 and 2014 studies accounts for the majority of the nonresidential land use increases.

For example, the peak population in the 2014 study was 1,443,996; however, the peak population in the 2012 study was 1,640,084—a decrease of 196,088. The primary difference appears to be in the transient population assumption, which affects the Parks & Recreation, Fire and Rescue, Law Enforcement and Public Building impact fee calculations.

[1] The 2012 Study also included the Law Enforcement impact fee calculated on a per capita basis.

Furthermore, the functional population coefficient for many nonresidential land uses differed in the 2014 Study compared to the 2012 Study due to methodologies developed and applied by the two consulting firms.

2012 and 2014 Functional Population Coefficient Comparison

Land Use	Functional Population Coefficient Per 1,000 Sq Ft	
Drive-in Bank	1.815	2.280
Quality Restaurant	2.231	6.820
High Turnover Sit-Down Restaurant	2.375	6.780
Office (<= 50,000 sq ft)	0.801	1.410
Retail (<= 50,000 sq ft)	2.050	2.450
Fast Food Restaurant	3.699	8.900

Public Buildings

A significant amount of debt associated with existing public buildings was paid off between 2012 and 2014, which decreased the credit component in the 2014 Study. However, the increase in Public Building impact fees was also affected by the differences in functional population and functional population coefficients described above.

OUTCOME

Because impact fees are not subject to a regulatory body that establishes standardization in practice, a wide variety of approaches are used even when applying the primary methodologies: plan-based (or improvements-driven) and standards-based (or incremental expansion or consumption-based). It is important for local governments to fully understand the assumptions and methodologies included in the impact fee study and to take the steps necessary to limit inequitable (and unintended) inconsistencies that may arise with a change in the impact fee preparer.

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II. STATUTORY AUTHORITY LAWSUIT

Bozeman, Montana

BACKGROUND

In December of 1995, the City of Bozeman (City) voted to adopt fees for streets, fire, water and wastewater, without permission through state enabling legislation. The fees voted upon became effective March 23, 1996. At this time, the City only had "general governing powers" not "self-governing powers" and as such, would need state legislation to pass ordinances. Self-governing power, which is the power to enact any measure not expressly forbidden by state laws, was granted to the City in July 2001.

In 1998, following the narrow approval of Initiative 19 by voters, the City sought to substantially increase the existing amounts being assessed for fees. The fee schedule increase was enough for members of the Southwest Montana Building Industry Association (SWMBIA) to begin questioning the authority of the City to collect fees. The local building industry (Building Industry) and the SWMBIA formed a coalition to fight the implementation of the increased fees. In 1999, the City and the SWMBIA entered a lawsuit relating to the City's fee ordinance on the grounds that the City did not have statutory authority to impose fees. The lawsuit was later certified as a class action lawsuit in 2000. The SWMBIA and its members were highly involved in all aspects of the lawsuit and formed a committee of builders to administer and oversee the lawsuit and to keep the SWMBIA informed of the status and progress, including fundraising, identifying necessary plaintiffs, and overall supervision as the lawsuit progressed.

Prior to and at the time of the fee issue, the state of Montana had not enacted state-enabling legislation for the implementation of fee programs. As state-enabling legislation had not been given, the SWMBIA believed the City had no authority to impose fees, to say nothing of the authority to collect or arbitrarily increase the unfounded fees without industry input or the preparation of a technical fee study. A highly important factor that contributed to the substantiality of the SWMBIA's case was not straying from the central argument that the city lacked the statutory authority to impose the fees. Years later in 2005, the passing of State Bill 185 allowed jurisdictions to implement fee programs on the legal basis of Montana Code 7-6-1601 et. seq.

City officials and other supporters for higher fees consistently used media channels to purport that any and all infrastructure problems or deficiencies were the result of the Building Industry's pursuing litigation over fees. Accordingly, the SWMBIA routinely used the local media to combat the misinformation and mischaracterization of the Building Industry and focused the public relations effort on educating the public about the SWMBIA's position and the importance of challenging the City's existing fee study. Allies of the SWMBIA included numerous members of the local and state building associations as well as state and local realtors. Efforts were focused on educating allies of the need for litigation and formally requesting their financial support to challenge the fees. By maintaining open lines of communication with allies throughout the process, the SWMBIA was able to receive additional funding when necessary.

OUTCOME

In February 2001, the lawsuit was settled and the City agreed to:

- Return a total of $5.1 million to approximately 1,000 fee payers resulting in a refund of approximately $5,000 per residential dwelling.

Bozeman Fee Refund

Fee Category	Amount Refunded
Street and Fire	$ 2,231,410
Water	1,293,369
Sewer	1,606,555
Total	$ 5,131,334
Residential Dwellings [(1)]	1,000
Refund per Residential Dwelling	$ 5,131

Footnote:

(1) Figure is approximate.

- Reduce the existing fee schedule by 10 percent until a new study could be completed.
- Allow local builders reasonable participation in the preparation of the new fee study.

After settlement was reached, the SWMBIA continued its public relations approach by providing the public with detailed information about the settlement and the parties eligible to receive fee refunds. The SWMBIA and the class were very pleased with the outcome of the lawsuit, however, the reasonable participation in the preparation of the new fee studies never really materialized.

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III. TIME PAYMENT OF FEES

Hillsborough County, Florida

BACKGROUND

The water and sewer systems for Hillsborough County, Florida (County) had substantial excess capacity within certain service areas caused by a combination of overly optimistic population projections, housing market down turns, down planning, and reluctance on the part of the County to approve rezonings involving higher residential densities.

The County was having difficulty meeting its bond payment obligations, and bond rating agencies threatened to downgrade the County to "junk bond" status. The reclassification would make it difficult for the County to successfully finance any future capital improvements through the issuance of bonds.

The water and sewer development impact fees (fees) in the County were structured to meet the needs of providing necessary capital infrastructure and were some of the highest utility fees in Florida. At the time of receiving certificate of occupancy, homebuilders paid fees of $3,665 per single family residence for water and sewer.

As a means of generating revenue, the County sought to implement a "stand-by" charge, which the Tampa Bay Builders Association (TBBA) felt was arbitrarily chosen and did not meet the provisions of rational nexus tests. As such, the TBBA threatened legal action.

The TBBA participated in a task force offering suggestions on how to increase revenues and cut expenses and suggested allowing the County to adopt the stand-by charge as a way to raise revenue and to allow the stand-by charge and fees to be financed by home buyers over a period of time. As a result of the concept of allowing the homebuilder to finance both the stand-by charge as well as the Fees through the use of special assessment bonds was created. The goal of the time payment of fees program was to accelerate the collection of funds by the County and to shift the burden of fees from the home builder to the home buyer and to protect the County's bonding ability and rating.

To accomplish the implementation of a time payment system, the County proposed a new fee, called the Accrued Guarantee Revenue Fee (AGRF), to reimburse the cost of the unused water and wastewater capacity in the utility system. Following extensive discussion, it was agreed that the County would adopt an AGRF of $445 for water and $645 for wastewater for a total AGRF of $1,090. Fees now due for water and wastewater were increased from the average of $3,665 per single family residence to a total of $4,755. The fee increase is illustrated in the table on the following page.

County Water and Wastewater Fees

Description of Fee	Amount
AGRF [(1)]	$ 1,090
Average Fee	3,665
Total Fee	$ 4,755

Footnote:

(1) The acronym represents the Accrued Guarantee Revenue Fee.