

PLANNING COMMISSION  
CITY AND COUNTY OF HONOLULU

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MUFI HANNEMANN  
MAYOR



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February 13, 2008

The Honorable Barbara Marshall, Chair  
and Members  
Honolulu City Council  
530 South King Street, Room 202  
Honolulu, Hawaii 96813

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CITY CLERK  
HONOLULU, HAWAII

Dear Chair Marshall and Councilmembers:

Subject: Resolutions 05-06, 05-32 and 06-273 Relating to Chapter 21, Revised Ordinances of Honolulu 1990 (The Land Use Ordinance)

The Planning Commission held a public hearing on January 30, 2008 on the above subjects, and the public hearing was closed. Written testimony was received from one individual in support of Resolution 06-273.

The Planning Commission voted on January 30, 2008, to recommend denial of City Council Resolutions 05-06, 05-32 and 06-273.

Attached is the report of the Director of Planning and Permitting. The minutes will be forwarded under separate cover.

Sincerely,

*Patricia J. Kalapa*

for

Karin Holma, Chair  
Planning Commission

APPROVED:

*Henry Eng*

Henry Eng, FAICP  
Director of Planning and Permitting

APPROVED:

*Mufi Hannemann*

Mufi Hannemann  
Mayor

*Wayne M. Hashiro*

Wayne M. Hashiro, P.E.  
Managing Director

KH:pk

Attachments

Authorization:	Henry Eng
Advertisement:	1-18-08
Public Hearing:	1-30-08

MUFI HANNEMANN  
MAYOR



HENRY ENG, FAICP  
DIRECTOR

DAVID K. TANOUE  
DEPUTY DIRECTOR

January 22, 2008

**MEMORANDUM**

TO: KARIN HOLMA, CHAIR  
AND MEMBERS OF THE PLANNING COMMISSION

FROM: HENRY ENG, FAICP, DIRECTOR  
DEPARTEMENT OF PLANING AND PERMITTING *Henry Eng*

SUBJECT: BILLS TO AMEND CHAPTER 21, REVISED ORDINANCES OF  
HONOLULU 1990 (THE LAND USE ORDINANCE), RELATING TO  
TRANSIT-ORIENTED DEVELOPMENT

Pursuant to Ordinance 06-50, we submit for your review and consideration our bill to amend the Land Use Ordinance (LUO) in support of transit-oriented development (TOD). We are also transmitting three (3) other TOD proposals to amend the LUO, initiated by City Council resolutions for your review and action.

Department's TOD Bill. A TOD bill was mandated by Ordinance 06-50. This Ordinance requires that a transit-oriented development (TOD) zoning ordinance be in place before transit stations can be placed on the Public Infrastructure Maps. Without this map designation, money cannot be appropriated for transit station construction.

We would have liked to defer action on TOD until the final environmental impact statement (FEIS) for the transit project has been accepted. It would include information useful to community groups and others interested in TOD, as well as set the initial ground work on TOD planning. However, the FEIS process is not expected to be completed until the end of 2009, and Ordinance 06-50 precludes us from waiting until then. Under these circumstances, we believe our proposal provides flexibility for the City's TOD program, while complying with this Ordinance.

Enclosed are four (4) documents:

1. Director's Report.
2. Final bill.
3. Draft Bill, originally circulated for public comment in October 2007.

4. Draft TOD Bill FAQ. This "Frequently Asked Questions" handout not only explained the bill, but also the City's TOD program in general. It accompanied the draft bill.

City Council Proposals. Under the Director's Report cited above, the department addresses the City Council's three (3) proposals which make specific changes to zoning provisions. Adopted under Resolution 05-006, CD1, the proposal would reduce parking standards for apartments near transit stations. Under Resolution 05-032, the LUO parking standards would be reduced for all uses close to transit stations. The last proposal, adopted under Resolution 06-273, would allow hotels near any transit station under a conditional use permit.

The department does not support adoption of these measures, as they are not based on a comprehensive analysis, nor on neighborhood-specific issues and concerns. These standards or similar ones may eventually be adopted, but we endorse a community-planning approach first, before making specific recommendations on TOD standards.

Therefore, we recommend approval of the DPP bill to establish transit oriented development special districts and not the separate, specific LUO amendments in the proposed bills attached to the above-referenced City Council resolutions. The DPP approach will establish enabling legislation for subsequent regulations in specific TOD special districts in accordance with the community plan.

HE:js

Attachments

cc: City Council  
Deputy Managing Director

**Director's Report**  
**Transit-Oriented Development (TOD)**  
Amendment to Chapter 21, Revised Ordinances of Honolulu (ROH), Land Use Ordinance  
January 22, 2008  
City Department of Planning and Permitting  
City and County of Honolulu

A. Proposal:

This bill outlines the zoning approach for development around transit stations; namely, special district regulations, which are based on neighborhood-specific TOD plans. Special districts regulations "overlay" existing zoning requirements and are used to address specific land use concerns in neighborhoods where standard zoning regulations are deemed insufficient. Special districts have been used to preserve scenic or panoramic views, restore historic neighborhoods, and renew neighborhood economic vitality. Regulations for transit-oriented development can accomplish these goals as well as support and encourage transit ridership. Special district regulations can be flexible or very specific, depending on the purposes of the regulations. Unless explicitly stated, the regulations are not optional, but apply throughout the specified area.

This bill also sets the planning prerequisites that must occur and the elements that should be considered as special district regulations. It sets forth the general objectives for TOD planning and regulations, recognizing that each transit neighborhood may have unique circumstances, opportunities, and challenges.

It is unusual for Chapter 21, ROH, the section of the City's ordinances assigned to the zoning code, to address neighborhood planning. But for TOD areas, it is crucial to firmly establish the direct relationship between the planning process and the implementing regulations. Alternatively, Section 21-9.100-1 of the proposed bill could be put into another section of the Revised Ordinances of Honolulu, just as the current TOD provisions are in Chapter 13 Public Transit, separated from planning and zoning chapters. A more direct linkage of TOD planning and zoning is important, and therefore, it is recommended that Section 13-9.3 be deleted, and its essence adopted under Chapter 21, ROH.

A fundamental premise of this bill is that any TOD regulations must be based on participation by the broadest range of interests possible, and from earliest planning stages through construction and operation. Experts in transit and TOD planning were consulted; they found that community participation is a key ingredient to successful TOD programs. Therefore, this bill builds on this premise, and provides the broadest flexibility in creating neighborhood-specific regulations (and incentives) for TOD. The difficulty is that the proposed zoning code amendments precede the prerequisite planning. While the City has embarked on TOD planning for two (2) transit station areas in Waipahu, it cannot complete all the neighborhood planning for the almost two (2) dozen stations in the first phase of the transit line.

B. Background:

The proposed bill is intended to comply with Ordinance 06-50 (Exhibit A). This ordinance requires that zoning regulations for transit-oriented development be adopted

before the City Council can place transit station symbols on the Public Infrastructure Maps. Without such map designations, the City Council is unable to appropriate land acquisition or construction funds for transit stations. The City administration intends to submit appropriations for the transit stations in 2008, to be encumbered under Fiscal Year 2008-09. Therefore, this bill must be transmitted to the City Council in early 2008.

C. Compliance with General Plan and Development Plans

1. The bill implements General Plan policies. Under Transportation and Utilities, Objective A:

Policy 7

Promote the use of public transportation as a means of moving people quickly and efficiently, of conserving energy, and of guiding urban development.

Policy 9

Promote programs to reduce dependence on the use of automobiles.

It also supports policies under Physical Development and Urban Design, Objective A:

Policy 5

Provide for more compact development and intensive use of urban lands where compatible with the physical and social character of existing communities.

Policy 6

Encourage the clustering of development to reduce the cost of providing utilities and other public services.

2. The regional Development Plans almost exhaustively recognize and support the relationship between land development and transit. Some policies address improvements in the transit right-of-way, while others address pedestrian interfaces. The following are those excerpts that recognize the relationship between transit and adjacent properties.
  - a. Primary Urban Center Development Plan
    - i. Section 3.2.2.3 **In-Town Residential Neighborhoods**  
"Density. Areas close to transit lines and the major east-west arterials should be zoned for medium-density residential, which may range from 13 to 90 units per acre, or high-density residential mixed use, which may range up to 140 units per acre. Neighborhoods in these zones would also include reinforcing uses which support resident lifestyle and livelihood choices, such as convenience or neighborhood stores, dining establishments, professional and/or business services, or other similar activities."
    - ii. Section 3.5.2 **Policies**  
"Implement land use strategies to achieve a balanced transportation system. To improve the quality of life in the Primary Urban Center and to accommodate growth, development initiatives and regulatory controls should promote the growth of sustainable and appropriate alternative urban travel modes such as transit, walking, and bicycling."

- iii. **Section 3.5.3 Guidelines**  
 “Identify and stimulate transit-oriented development on potential infill and redevelopment properties within the rapid transit corridor. Examples of development stimulators include tax incentives, development code amendments, and public infrastructure investments.”
  - b. **Ewa Development Plan**
    - i. **Section 3.6.3.1 General Policies**  
 “**Higher Density Housing Along the Transit Corridor.** To promote use of mass transit, higher-density residential use should be developed along a major rapid transit corridor linking Kapolei with Waipahu and Primary Urban Center communities to the east. High-Density Residential and Commercial uses should be developed at six transit nodes, which would cover a one-quarter-mile radius around major transit stops. Areas along the rapid transit corridor should have housing densities of 25 units per acre, and greater densities are expected within the transit nodes. . . .”  
 “**Integration of Linear Corridors.** Physical and visual connections between communities should be encouraged through the creative design of transportation and utility corridors and drainage systems.”
    - ii. **Section 3.6.3.2 Guidelines**  
 “**High Density Residential, Location . . .** High Density Residential is intended to be the predominant form of housing in and near the City of Kapolei and around transit nodes on the planned rapid transit corridor between Waipahu and Kapolei. . . .”
    - iii. **Section 4.1.4.2 Planned Rapid Transit Corridor**  
 “. . . High density residential and commercial development should be permitted within a one-quarter mile radius (15 minutes walking distance) around the transit station/park-and-ride facility site at the center of the transit node. The objective is to create a land use pattern that would allow residents to minimize use of the private automobile and encourage use of transit for longer trips and walking or biking for short trips.”
    - iv. **Section 4.1.7 Planning Principles**  
 “**Land Use Planning Anticipating Rapid Transit.** Key to the vision for Ewa is reservation of a rapid transit corridor prior to development and the planning of high-density and high-traffic land uses along the corridor. This strategy will contribute to the feasibility of developing a high-speed transit line and will result in a more mobile, less automobile-dependent community. Planning for all the communities along the proposed transit corridor on Farrington Highway, North-South Road, and Kapolei Parkway should reflect the desire to establish a rapid transit corridor with high density residential and commercial nodes allocated at regular intervals.”
  - c. **Central Oahu Sustainable Communities Plan**
    - i. **Section 2.2.7 Communities Designed to Support Non-Automotive Travel**

"The master-planned residential communities will be designed or redeveloped to support pedestrian and bike use within the community and transit use for trips outside of the community.

An east-west Rapid Transit Corridor through Waipahu will link the Primary Urban Center with the University of Hawaii West Oahu Campus and the City of Kapolei. Medium density residential development will be built along the corridor within walking distance of the major nodes and transit stops.

"Medium density residential and commercial development will be developed at two transit nodes whose general locations is indicated on the Public Facilities Map in Appendix A. Transit nodes are meant to be located at activity focal points which would serve as natural points for transferring from one transportation mode to another. . .

"Access to the future rapid transit system from other Central Oahu communities will be provided by mass transit bus service, park and ride facilities, and express bus service running on High Occupancy Vehicle (HOV) lanes. High speed transit will also run along the H-2 Freeway, stretching from Waipahu to Wahiawa."

- ii. Section 3.5.1.1 **Anchor Areas**

" . . . The **Commercial Anchor** area includes a commercial and light industrial area centered around the intersection of Leoku and Farrington Highway.

"Redevelopment of the area to encourage medium-density, mid-rise mixed use residential/commercial development within one-quarter mile distance of a town center/transit node near the intersection of Leoku and Farrington Highway (as shown on Exhibit 3.3) should be pursued through public-private partnerships. . ."
- iii. Section 3.5.2 **Planning Principles**

"**Circulation.** Vehicular access into and within Waipahu should be improved, and pedestrian, bicycle, and transit facilities should be integrated."
- iv. Section 3.5.3.5 **Residential Areas**

"Mid-rise, medium density apartment buildings, including mixed-use developments, should be encouraged in areas within one-quarter mile of future town centers/transit nodes at the intersection of Leoku and Farrington and at the intersection of Waipahu Depot Road and Farrington, with the exception of the Old Town Commercial Area."
- v. Section 3.5.3.6 **Circulation Design Guidelines**

"Space for a possible future transit corridor should be reserved along Farrington Highway and higher intensity uses encouraged near future transit nodes along that route."
- vi. Section 3.8.1.2 **Higher Density Housing Along the Waipahu-Kapolei Transit Corridor**

"To promote use of mass transit, higher-density residential use should be developed along a major rapid transit corridor linking Waipahu with Kapolei in the west and with Primary Urban Center communities to the east. Medium Density Apartment and Commercial mixed uses should

be developed at two transit nodes, which would cover a one-quarter-mile radius around major transit stops. Areas along the rapid transit corridor should have housing densities of 25 units per acre, and greater densities are expected within the transit nodes. . .”

vii. **Section 3.8.2.3 Medium Density Apartment**

**“Location.** Medium Density Apartment is intended to be the predominant form of housing near two transit nodes in Waipahu on the planned rapid transit corridor, either as a single use or mixed use development. . . .

**“Density.** Allowable building density should accommodate 25 to 90 units per acre. . . .

**“Height.** In Waipahu, Medium Density Apartment building heights in the transit node area centered on the Waipahu Depot Road – Farrington Highway intersection should not exceed 60 feet or the elevation of the roof ridge line of the Waipahu Sugar Mill, whichever is lower. . . .”

viii. **Section 3.9.2.4 Accessibility**

“Commercial centers should incorporate site design and facilities to promote pedestrian, bicycle and transit access. Pedestrian and bicycle access is more important for smaller neighborhood centers, while transit access is more significant for community centers.”

ix. **Section 3.9.3.3. Transit Access**

“All commercial development with more than 1,000 square feet and all employment sites with more than ten employees should be within 1/8<sup>th</sup> mile of a transit stop.”

x. **Section 4.1.5 General Policies**

**“Reduction in Automobiles Use.** Reliance on the private passenger vehicles should be reduced by:

“. . . Support for medium-density and high-traffic land uses along the Farrington Highway transit corridor, especially within a quarter-mile of the transit nodes. . . .”

xi. **Section 4.1.6 Planning Principles**

**“Land Use Anticipating Dedicated Transit Lanes on Farrington Highway.** Land use planning for Waipahu should emphasize and strengthen Farrington Highway’s role as a transit corridor by:

“Reserving adequate right-of-way and establishing setbacks to allow for establishment of a separate transit right-of-way; and

“Encouraging intensive residential and commercial uses around the two transit nodes and along the transit corridor.”

**“Transit-Oriented Community Street Systems.** Circulation systems within residential communities and commercial centers should emphasize accessibility from residences to bus routes, parks, schools, and commercial centers. Circulation systems should be designed to facilitate bicycle and pedestrian travel, to increase transit use, and to reduce dependence on automobile travel.”

D. Public and Agency Comments:

In mid-October 2007 the department announced the introduction of the draft bill. It sent copies of the bill and an explanatory Fact Sheet to more than 700 individuals and organizations interested in land use planning, including county and state officials, for review and comment. In addition, the availability of the bill was announced at various public meetings and mentioned on the department's website. To be considered in the final draft transmitted to the City Planning Commission, suggested changes and comments were requested to be received by November 30, 2007.

Exhibit B summarizes the substantive comments on the bill itself, received as of November 30, and the department's response, including changes being proposed to the original version. Exhibit C provides copies of all comments received.

E. Related City Council Resolutions

The City Council adopted several resolutions relating to TOD. The following relate to requests for review and evaluation (see Exhibit D for copies):

Resolution 06-118, CD1	Requests DPP to review TOD ordinances of other cities, including Salt Lake City.
Resolution 06-286	Requests DPP to review and use the South Salt Lake City TOD overlay district.
Resolution 06-302	Requests DPP to review Vancouver, British Columbia's "Central Area Plan" legislation.

*Other resolutions proposed specific amendments to the Land Use Ordinance (LUO) relating to TOD (refer to Exhibit E). They are:*

Resolution 05-006, CD1	Reduces parking standard for multi-family dwellings near transit stations.
Resolution 05-032	Reduces parking requirement by 50 percent (50%) for lots within a quarter-mile of a transit center.
Resolution 06-273	Allow hotels under a conditional use permit if within one (1) mile of a transit center.

*The department deferred action on these proposals until a clear transit alignment and stations (and technology) are determined. However, given the necessity of proposing an LUO amendment on TOD at this time, we are providing recommendations on these proposals at this time.*

Resolution 06-118, CD1, and 06-286. The department reviewed the Salt Lake City, Utah ordinance, which was included in Resolution 06-286. As reported to the City Council in a status report dated October 27, 2006 (Exhibit F), we do not find the South Salt Lake City useful. That City has a population of less than 25,000 people, and the subject TOD area covers an area about the size of a small airport. Moreover, while it covers several

transit stations, there is only one (1) set of regulations, and landowners can “opt out” of the TOD provisions. We believe that TOD in any of our neighborhoods should consider the characteristics, opportunities, and desires of the host neighborhood and, therefore, cannot agree to a “one size fits all” set of regulations. In addition, we are not supportive of an optional overlay process, and thus, are proposing special district regulations, wherein the provision are mandatory.

The department continues to review the TOD programs and regulations of other cities. In October 2006, the department hosted a tour of four (4) West Coast cities known for TOD programs: Vancouver, British Columbia; Portland, Oregon; San Diego, California; and the San Francisco Bay area. The purpose was to visit various TOD projects and meet with their developers, government agencies, and transit representatives. As reflected in the Investigative Report of the Tour under City Council Communication No 260 (2006), submitted by Councilmembers Gary Okino and Romy Cachola, there is great variety in the types of TOD projects being built, and the kinds of TOD programs available.

We have looked at the Portland TOD ordinance which links public benefits--such as special needs housing day-care facilities and community gardens--with property tax credits. A stronger link between TOD and taxation policies could be a strategy worth exploring for Honolulu.

In addition, the department has hired an urban design consulting firm to assist in the development of the first TOD Neighborhood Plan. It covers the two (2) transit stations in Waipahu. The firm, Van Meter Williams Pollack LLP, has extensive experience in TOD planning and design, including code writing. They will be assisting the department in preparing draft TOD zoning regulations based on their knowledge of cutting edge TOD programs and projects.

Resolution 06-302. We have reviewed the Central Area Plan of Vancouver, British Columbia (Exhibit G). As noted in the Resolution, it shares many of the policies already found in our General Plan. Similar policies can also be found in the regional development plans, and other planning documents, as well as the LUO (e.g., limiting commercial uses in areas designated primarily for housing). Also as noted in the Resolution, the Central Area Plan pays particular attention on office and retail spaces, whereas our plans generally do not. We believe some of the concepts of the Central Area Plan, such as differentiating between small-scale commercial/support uses and regional uses, could be addressed under TOD special districts. Others do not seem applicable, such as when underground links are allowable and for what purposes.

Finally, it must be remembered that Canada does not have the identical planning and zoning framework of American cities. Nor is Vancouver’s land development market similar to that of Oahu. Participants on the tour of TOD projects on the West Coast learned that there is strong political and public support in Vancouver for planning and design review, which we have yet to match. Therefore, the Honolulu approach may inherently have to be different, although we share the same goals.

Resolutions 05-006, CD1, and 05-032. We recognize the principle that development near transit stations should be able to reduce their parking requirement. We also are aware that some cities limit the total number of parking provided, rather than setting minimum standards. Not only do these actions reduce the cost of development, but also encourage transit ridership, and make more efficient use of land.

However, we are recommending that LUO amendment proposals proposed under these Resolutions not move forward. We believe they unnecessarily restrict the city's parking strategies. In some cases, we may want to reduce the parking standard even further than what is proposed under these resolutions. Or, we may want to be able to promote "shared" parking across uses. Or, we may want to tie reduced parking with other incentives, such as employee transit passes. These options should be left open and, in some cases, negotiated at the project level, rather than adopted as across-the-board measures.

Resolution 06-273. The department recommends that this proposal also not move forward. Wholesale allowance of hotel use in any neighborhood is a significant land use change, and could warrant a General Plan and/or development plan amendment first. Through our TOD planning process, if this use is desired for a particular neighborhood, we will address it then. We are committed to drafting TOD zoning regulations based on a comprehensive, open, public planning process, and not on pre-determined "solutions".

#### F. CONCLUSION

Based on the foregoing, I recommend that the above proposed LUO amendments under Resolutions 05-006, CD1, 05-032, and 06-273 not be adopted.

The attached draft bill is in compliance with the General Plan and applicable development plans. It is recommended for approval.

DEPARTMENT OF PLANNING & PERMITTING  
CITY AND COUNTY OF HONOLULU  
STATE OF HAWAII

By

  
Henry Eng, FAICP, Director  
Department of Planning and Permitting

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A BILL FOR AN ORDINANCE

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RELATING TO TRANSIT-ORIENTED DEVELOPMENT

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. Findings and Purpose.

The council finds that Honolulu has initiated a major mass transit project that has the potential to fundamentally reshape the form and character of Honolulu. The council has selected a fixed guideway system and the Locally Preferred Alternative ("LPA") for the project under Ordinance 07-01.

Appropriate transit-oriented development ("TOD") land use regulations along the alignment and around the rapid transit stations will be crucial.

It has been consistently noted about successful TOD programs of other cities that community-based input is a necessary element of TOD programs, and that one set of regulations cannot adequately address TOD needs and opportunities across all transit stations. Therefore, to assure that Honolulu will have a successful TOD program, a deliberate, inclusive process to plan for TOD is necessary so that well-defined, meaningful, and appropriate regulatory and incentive programs can be adopted for each area around a transit station or type of station.

This TOD planning and implementation process will implement the Oahu General Plan and applicable regional development plans. Specifically, it will help stem urban sprawl across the city's agricultural and open space lands; encourage the development of livable, walkable communities; and increase transit ridership, thereby promoting the economic, social, and environmental well-being of the city.

With the potential for such a significant and positive change in development patterns, it is crucial that proper planning guidance be given, well before the transit stations are constructed. This will allow for timely community input and to put into place appropriate regulations for TOD before redevelopment occurs.

The council, therefore, finds that to protect the public interest and welfare, the Land Use Ordinance is to be amended to provide guidance on how to determine zoning regulations for areas around each transit station. The planning process shall be open, inclusive and visionary, and shall strive to increase the quality of life through

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rejuvenated community character (including “place-making” opportunities), preservation and enhancement of historic, cultural, scenic, natural and other community resources and landmarks, while understanding the relationship between zoning, financing, and real estate market dynamics.

SECTION 2. Section 13-9.3, Revised Ordinances of Honolulu 1990 is amended by deleting the following:

[As used in this article, “transit oriented development ordinance” (“TOD ordinance”) means an amendment to the land use ordinance regulating development at and around transit stations. The TOD ordinance shall:

- (1) Enable a mix of land uses;
- (2) Enable higher densities;
- (3) Eliminate or reduce minimum off-street parking requirements for such development;
- (4) Encourage travel by rapid transit, buses, walking, bicycling, and other non-automobile forms of transport;
- (5) Encourage development of a mixture of market-rate and affordable housing;
- (6) Encourage public-private partnerships in such development;
- (7) Utilize form-based zoning, exemptions, or other alternatives from existing development regulations, and utilize other incentives to encourage such development;
- (8) Encourage activity at a defined community center; and
- (9) Encourage public input in the design of each transit stations so each station reflects unique community design themes, history, or landmarks.]

SECTION 3. Section 21-9, Revised Ordinances of Honolulu 1990 is amended to add a new subsection as follows:

Sec. 21-9.100 Transit-oriented development (TOD) special districts.

Special districts shall be established around rapid transit stations to foster more livable communities that take advantage of the benefits of transit; specifically, reducing transportation costs for residents, businesses, and workers. While taking advantage of more efficient use of land, TOD can provide more walkable, healthier, economically vibrant communities, safe bicycling environments, convenient access to daily household needs as well as special events, and enhancement of neighborhood character, while increasing transit ridership.



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Each special district shall be based on a neighborhood plan that addresses transit-oriented development. The plans may include more than one station, and may address other community concerns and opportunities.

Where a transit station is located within or adjacent to an existing special district, provisions for TOD shall be added to the existing special district provisions, as recommended by the neighborhood TOD plan.

Sec. 21-9.100-1 Neighborhood TOD plans.

- (a) Prior to the adoption of any TOD special district, there shall be a Neighborhood TOD Plan which serves as the basis for specific special district regulations. Each plan shall address, at minimum, the following:
  - (1) The general objectives for the particular TOD special district in terms of overall economic revitalization, neighborhood character, reflecting unique community historic and other design themes. Objectives shall summarize the desired neighborhood mix of land uses, general land use intensities, circulation strategies, general urban design forms, and cultural and historic resources that form the context for TOD.
  - (2) Recommended special district boundaries around each transit station that take into account natural topographic barriers, extent of market interest in redevelopment, and the benefits of transit including the potential to increase transit ridership; typically these boundaries are from ¼ mile to ½ mile from each station. When appropriate, recommendations may define a "core area" and transition boundaries.
  - (3) Recommended zoning controls, including architectural and community design principles, open space requirements, parking standards, and other modifications to existing zoning requirements, or the establishment of new zoning precincts, as appropriate, including density incentives. Form-based zoning may be considered. Prohibition of specific uses shall be considered.
  - (4) Potential opportunities for affordable housing, and as appropriate, with supportive services.
  - (5) General direction on implementation of the recommendations, including the phasing, timing and approximate cost of each recommendation, as appropriate, and new financing opportunities that should be pursued.
- (b) The planning process shall be inclusive, open to residents, businesses, landowners, community organizations, government agencies, and others.
- (c) The planning process shall consider population, economic, and market analyses and infrastructure analyses, including capacities of water, wastewater, and



A BILL FOR AN ORDINANCE

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roadway systems. Where appropriate, public-private partnership opportunities shall be investigated.

- (d) The plan shall be consistent with the applicable regional development plan.
- (e) The plan shall be consistent with any applicable special area plan or community master plan, or make recommendations for revisions to these plans.
- (f) The plan shall be submitted to the applicable neighborhood boards at least forty-five (45) days prior to submittal to the city planning commission. The city planning commission shall hold a public hearing and transmit its recommendations to the city council. The city council shall adopt the plan by resolution within sixty (60) days of receipt, or it shall be deemed adopted.

Sec. 21-9.100-2 TOD special district minimum requirements.

Based on the adopted neighborhood TOD plan, each special district shall include, but not be limited to the following provisions:

- (a) Allowances for a mix of land uses, both vertically and horizontally.
- (b) Density and building height limits that may be tied to the provision of community amenities, such as public open space, affordable housing, and community meeting space.
- (c) Elimination or reduction of the number of required off-street parking spaces, including expanded allowances for joint use of parking spaces.
- (d) Design provisions that encourage use of rapid transit, buses, bicycling, walking, and other non-automobile forms of transport that are safe and convenient.
- (e) Guidelines on building orientation and parking location, including bicycling parking.
- (f) Identification of important neighborhood historic, scenic, and cultural landmarks, and controls to protect and enhance these resources.
- (g) Design controls that require human-scale architectural elements at the ground and lower levels of buildings.
- (h) Landscaping requirements that enhance the pedestrian experience, support station identity, and complement adjacent structures.

SECTION 4. Ordinance material to be repealed is bracketed. New material is underscored. When revising, compiling or printing this ordinance for inclusion in the Revised Ordinances of Honolulu, the revisor of ordinances need not include the brackets, the bracketed materials, or the underscoring.



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SECTION 5. This ordinance shall take effect upon its approval.

INTRODUCED BY:

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\_\_\_\_\_  
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\_\_\_\_\_  
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DATE OF INTRODUCTION:

\_\_\_\_\_  
Councilmembers

\_\_\_\_\_  
Honolulu, Hawaii

APPROVED AS TO FORM AND LEGALITY:

\_\_\_\_\_  
Deputy Corporation Counsel

APPROVED this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

\_\_\_\_\_  
MUFU HANNEMANN, Mayor  
City and County of Honolulu



Draft Bill (originally circulated for public  
comment in October 2007) and  
Draft TOD Bill FAQ

MUFI HANNEMANN  
MAYOR



HENRY ENG, FAICP  
DIRECTOR

DAVID K. TANOUÉ  
DEPUTY DIRECTOR

October 23, 2007

**TRANSIT-ORIENTED DEVELOPMENT (TOD)**  
**Draft Planning and Zoning Bill Available for Review**

We are pleased to share with you our draft Transit-Oriented Development (TOD) bill. It sets the planning framework for zoning regulations appropriate to individual transit stations.

Also enclosed is an explanation of the bill and our TOD program.

Comments are due by November 30. If you cannot meet this deadline, you may offer your comments directly to the City Planning Commission. The Commission will hold a public hearing, tentatively set for December 12, 2007. For more information on the Planning Commission hearing, please call 768-8007.

If you have any questions on this bill, or the City's TOD program, please contact Kathy Sokugawa of our staff at 768-8053.

Very truly yours,

A handwritten signature in black ink, appearing to read "Henry Eng".

Henry Eng, FAICP, Director  
Department of Planning and Permitting



A BILL FOR AN ORDINANCE

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RELATING TO TRANSIT-ORIENTED DEVELOPMENT

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. Findings and Purpose.

The council finds that Honolulu is initiating a major transportation project that has the potential to fundamentally reshape the form and character of Honolulu. The council has selected a fixed guideway system and the Locally Preferred Alternative ("LPA") for the Project under Ordinance 07-01.

If rail technology is selected, appropriate transit-oriented development ("TOD") land use regulations along the alignment and around the transit stations will be crucial.

It has been consistently noted about successful TOD program of other cities that community-based input is a necessary element of TOD programs, and that one set of regulations cannot adequately address TOD needs and opportunities across all transit stations. Therefore, for Honolulu to have a successful TOD program, a deliberate, inclusive process to plan for TOD is necessary so that well-defined, meaningful, and appropriate regulatory and incentive programs can be adopted for each area around a transit station or type of station.

This will implement the Oahu General Plan and applicable regional development plans. Specifically, it will help stem urban sprawl across the city's agricultural and open space lands; encourage the development of livable, walkable communities; and increase transit ridership, thereby promoting the economic, social, and environmental well-being of the city.

With the potential for such a significant and positive change in development patterns, it is crucial that proper planning guidance be given, well before the stations are constructed. This will allow for timely community input and to put into place appropriate regulations for TOD before redevelopment occurs.

The council, therefore, finds that to protect the public interest and welfare, the Land Use Ordinance is to be amended to provide guidance as to how to determine zoning regulations for areas around each transit station.

DPPTOD.B07



A BILL FOR AN ORDINANCE

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SECTION 2. Section 13-9.3, Revised Ordinances of Honolulu 1990, is amended by deleting the following:

[As used in this article, "transit oriented development ordinance" ("TOD ordinance") means an amendment to the land use ordinance regulating development at and around transit stations. The TOD ordinance shall:

- (1) Enable a mix of land uses;
- (2) Enable higher densities;
- (3) Eliminate or reduce minimum off-street parking requirements for such development;
- (4) Encourage travel by rail transit, buses, walking, bicycling, and other non-automobile forms of transport;
- (5) Encourage development of a mixture of market-rate and affordable housing;
- (6) Encourage public-private partnerships in such development;
- (7) Utilize form-based zoning, exemptions, or other alternatives from existing development regulations, and utilize other incentives to encourage such development;
- (8) Encourage activity at a defined community center; and
- (9) Encourage public input in the design of each transit station so each station reflects unique community design themes, history, or landmarks.]

SECTION 3. Section 21-9, Revised Ordinances of Honolulu 1990, is amended to add a new subsection as follows:

Sec. 21-9.100 Transit-oriented development (TOD) special districts.

Special districts shall be established around rail transit stations to foster more livable communities that take advantage of the benefits of transit; specifically, reducing transportation costs for residents, businesses and workers. While taking advantage of more intense use of land, TOD can provide more walkable communities, convenient access to daily shopping needs as well as special events, and enhancement of neighborhood character.

Each special district shall be based on a neighborhood plan that addresses transit-oriented development. The plans may include more than one (1) station, and may address other community concerns and opportunities.



A BILL FOR AN ORDINANCE

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Sec. 21-9.100-1 Neighborhood TOD plans.

- (a) Prior to the adoption of any TOD special district, there shall be a Neighborhood TOD Plan which serves as the basis for specific special district regulations. Each plan shall address, at minimum, the following:
- (1) The general objectives for the particular TOD special district in terms of overall neighborhood character, reflecting unique community historic and other design themes. Objectives shall summarize the desired neighborhood mix of land uses, general land use intensities, circulation strategies, general urban design forms, and cultural and historic resources that form the context for TOD.
  - (2) Recommended special district boundaries around each transit station that take into account natural topographic barriers, extent of market interest in redevelopment, and potential to increase transit ridership. When appropriate, recommendations may define a "core area" and transition boundaries.
  - (3) Recommended zoning controls, including architectural and community design principles, open space requirements, parking standards, and either modifications to existing zoning requirements or new zoning precincts, as appropriate. Form-based zoning may be considered. Prohibition of specific uses shall be considered.
  - (4) Potential opportunities for affordable housing.
  - (5) General direction on implementation of the recommendations, including the phasing, timing and approximate cost of each recommendation, as appropriate.
- (b) The planning process shall be inclusive, open to residents, businesses, landowners, community organizations, and others.
- (c) The planning process shall consider economic and market analyses and infrastructure analyses, including capacities of water, sewer and roadway systems. Where appropriate, public-private partnership opportunities shall be investigated.
- (d) The plan shall be consistent with the applicable regional development plan.
- (e) The plan shall be consistent with any applicable special area plan or community master plan, or make recommendations for revisions to these plans.
- (f) The plan shall be submitted to the applicable neighborhood boards at least forty-five (45) days prior to submittal to the city planning commission. The city planning commission shall hold a public hearing and transmit its recommendations to the city council. The city council shall adopt the plan by resolution within sixty (60) days of receipt, or it shall be deemed adopted.



A BILL FOR AN ORDINANCE

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Sec. 9.100-2 TOD special district minimum requirements.

Based on the adopted neighborhood TOD plan, each special district shall include, but not be limited to, the following provisions:

- (a) Allowances for a mix of land uses, both vertically and horizontally.
- (b) Density and building height limits that may be tied to the provision of community amenities, such as public open space, affordable housing, and community meeting space.
- (c) Elimination or reduction of the number of required off-street parking spaces, including expanded allowances for joint use of parking spaces.
- (d) Design provisions that encourage use of rail transit, buses, bicycling, walking, and other non-automobile forms of transport.
- (e) Guidelines on building orientation and parking location
- (f) Identification of important neighborhood historic, scenic and cultural landmarks, and controls for protecting and enhancing these resources.
- (g) Design controls that require human-scale architectural elements at the ground and lower levels of buildings.
- (h) Landscaping requirements that enhance the pedestrian experience, support station identity, and complement adjacent structures.

SECTION 4. Ordinance material to be repealed is bracketed. New material is underscored. When revising, compiling or printing this ordinance for inclusion in the Revised Ordinances of Honolulu, the revisor of ordinances need not include the brackets, the bracketed materials, or the underscoring.



A BILL FOR AN ORDINANCE

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SECTION 5. This ordinance shall take effect upon its approval.

INTRODUCED BY:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DATE OF INTRODUCTION:

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Honolulu, Hawaii

\_\_\_\_\_  
Councilmembers

APPROVED AS TO FORM AND LEGALITY:

\_\_\_\_\_  
Deputy Corporation Counsel

APPROVED this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

\_\_\_\_\_  
MUFU HANNEMANN, Mayor  
City and County of Honolulu

*What does the bill propose?*

This bill sets the framework for the creation of transit-oriented development zoning regulations. This framework requires the creation of neighborhood TOD plans which outlines recommended zoning regulations, which are part of a series of actions that are necessary for successful TOD projects to occur. Other actions may include financial strategies, capital improvement projects, and private sector initiatives. Once a plan for a neighborhood TOD plan is completed, the recommended zoning regulations will be drafted for that neighborhood, and added to Chapter 21, Revised Ordinances of Honolulu (ROH).

The subject bill takes the zoning-related provisions of Ordinance 06-50, and transfers them from one part of the Revised Ordinances of Honolulu, Chapter 13, to another, Chapter 21, which is the zoning code, more familiarly referred to as the Land Use Ordinance, or LUO.

*Why do you need to move the zoning provisions of Ordinance 06-50?*

Zoning matters should be found in one place. The current location, under the chapter on public transit, could be "lost" over time by land use planning stakeholders, who do not commonly reference Chapter 13.

*The LUO does not include planning prerequisites for other zoning regulations. Why should it do so for TOD regulations?*

Wherever TOD research is found, there is a constant theme that successful TOD projects come from community-based planning meeting multiple objectives. We support this concept to the extent that it should be adopted by law. The most convenient and efficient place in the City ordinances would be to create this prerequisite in Chapter 21.

The other alternative would be to amend the respective regional development plans. However, the current development plans already include general policies for transit, and the level of detail reflected in the subject bill, especially the procedural provisions, is not appropriate for long-range policy plans.

*What is involved in developing a neighborhood TOD plan?*

The process will be an open, deliberative one. It will allow the stakeholders of each neighborhood to speak on desired community goals, opportunities that could come with TOD projects, and the challenges to make the goals happen.

We will look at existing neighborhood conditions, including infrastructure capacities, and compare this with the community's needs and desires. The process will include looking at alternative land use development scenarios and discussing which ones are more appropriate. The process will also identify needed infrastructure improvements and financial incentives and other changes to encourage good TOD.

The plan's recommendations will address land uses, circulation patterns, architecture and community design, housing, parking, pedestrian amenities, and historic and cultural enhancements.

Each plan will be submitted to the City Planning Commission and City Council for consideration.

*How long will it take to conduct a neighborhood plan?*

Typically, we expect to complete a plan in about a year. The timeframe will vary depending on how many stations are involved, the complexities involved in accommodating growth, and level of interest by all stakeholders.

We have just started the first plan. This one covers Waipahu, which has two (2) planned transit stations. We expect the final plan to be completed in about a year.

*How long will it take to complete all the plans?*

At this time, we do not have a set schedule, other than to complete all the plans and have zoning regulations adopted before the transit system is running, by 2012.

*Why can't you develop the neighborhood plans all at once?*

This is a new initiative for the department, and we want to start off modestly, with one (1) neighborhood, whose processes and experiences become the basis for the plans that follow, keeping in mind that each community's values, needs, and opportunities may be different. In addition, the department is currently seeking additional staffing to handle this new major program.

*Will this process and zoning regulations affect Kakaako?*

No. By State law, planning and zoning for Kakaako, as well as Kalaeloa, is not under the City's jurisdiction, but under the Hawaii Community Development Authority.

*What kind of zoning regulations will be drafted after the neighborhood plans are completed?*

We cannot say without completing the neighborhood plans. We are keeping an open mind as we plan for TOD, sensitive to the needs and opportunities of each particular neighborhood.

The subject bill proposes that TOD zoning regulations be adopted as “special districts.” Under the LUO, special districts establish regulations custom-made for the particular neighborhood. For example, there is a Chinatown Special District that provides strong guidance on the architectural elements of each building in Chinatown. In contrast, the Punchbowl and Diamond Head Special Districts are more focused on height limits to preserve public views of these scenic and historic craters. In Waikiki, the special district creates completely unique zoning “precincts” rather than modifying traditional zoning districts.

We have been researching the TOD regulations of other cities. Many TOD regulations allow increased densities and height limits as incentives for TOD. However, in most of our commercial neighborhoods, existing limits are rarely realized; development is far less intense than the regulations allow. In addition, we value our mauka-makai views, and any increases in building height limits will have to address how these views could be affected.

Typical TOD regulations from mainland cities also address parking standards. Some even limit the total number of parking spaces allowed, rather than requiring a minimum number. By having a maximum limit, this further encourages transit ridership, reduces traffic congestion, and reduces construction costs. Still others allow developers to negotiate the number of parking spaces based on the particular uses involved in the project and accompanying “demand management” strategies, such as providing employees with free transit passes, or providing housing for low-income households. At this time, we are open to all alternatives.

*Does this mean that every transit station will have its own set of zoning regulations around it?*

Possibly. Or, as we complete neighborhood plans, we will see similarities, and may be able to group the regulations for areas with similar TOD plans. In some cities, stations are grouped by “typologies” and regulated accordingly; e.g. there is a set of regulations for suburban town centers, for urban centers, and for the central business district.

In some places, such as Chinatown, there may not be a need for TOD special district per se, but TOD provisions may be added to the existing Chinatown Special District.

*Isn't it too early to start the planning for TOD? We haven't even made a decision on what transit technology we will have, nor completed the EIS process, and it will be several years before a transit system is actually running. Neighborhood conditions could change by then.*

Under Ordinance 06-50, we must have a TOD zoning ordinance in place before the City Council will appropriate any funds for the construction of transit stations. Since this construction funding request will be submitted in 2008, we must forward the subject TOD bill early next year to City Council, so that it can be adopted in time.

In earlier years, cities did not adopt TOD regulations until after the transit system was in place. However, developers have noticed the value of development around transit stations nationally, and therefore, have realized that planning and investing before the transit system is completed can be a wise decision. Thus, there is a kind of niche development emerging, called "transit-ready" development. To forestall any kind of inappropriate development, it is important to develop the concepts for desirable developments around transit stations, earlier, rather than later. This is another reason why the department advocates for neighborhood plans before adopting zoning regulations.

Some of the incentives used by other cities will need to be put in place here under new rules or ordinances, which will require time to prepare. Thus, it is important that planning for TOD begins now, so that the new rules or ordinances are available when needed. For example, in Portland, property tax exemptions are offered in return for certain land use or public amenities. In addition, we may find that key infrastructure upgrades will need to be in place, and time must be given to plan, design and construct these improvements.



Exhibit A  
ORDINANCE 06-50



**A BILL FOR AN ORDINANCE**

RELATING TO REQUIREMENTS FOR TRANSIT STATIONS.

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. Purpose. The purpose of this ordinance is to establish certain requirements for the development of transit stations for a rail transit system and make conforming amendments to the revised ordinances.

SECTION 2. Chapter 13, Revised Ordinances of Honolulu 1990 ("Public Transit"), as amended, is amended by adding a new article to be appropriately designated by the revisor of ordinances and read as follows:

**"Article \_\_. Transit Stations**

**Sec. 13-\_\_1 Application.**

This article applies to the development of any transit station for a rail transit system should such a system be selected as the locally preferred alternative for Honolulu pursuant to the requirements of the Federal Transit Administration, U.S. Department of Transportation.

**Sec. 13-\_\_2 Requirement.**

Prior to:

- (1) The adoption of a public infrastructure map symbol for a transit station pursuant to Chapter 4, Article 8; or
- (2) The budgeting of any funds for the construction of a transit station in the capital improvement budget;

whichever comes first, a transit oriented development ordinance shall first have been enacted that regulates development in the area of the transit station.

**Sec. 13-\_\_3 Transit oriented development ordinance.**

As used in this article, "transit oriented development ordinance" ("TOD ordinance") means an amendment to the land use ordinance regulating development at and around transit stations. The TOD ordinance shall:



A BILL FOR AN ORDINANCE

- (1) Enable a mix of land uses;
- (2) Enable higher densities;
- (3) Eliminate or reduce minimum off-street parking requirements for such development;
- (4) Encourage travel by rail transit, buses, walking, bicycling, and other non-automobile forms of transport;
- (5) Encourage development of a mixture of market-rate and affordable housing;
- (6) Encourage public-private partnerships in such development;
- (7) Utilize form-based zoning, exemptions, or other alternatives from existing development regulations, and utilize other incentives to encourage such development;
- (8) Encourage activity at a defined community center; and
- (9) Encourage public input in the design of each transit station so each station reflects unique community design themes, history, or landmarks."

SECTION 3. Section 4-8.3, Revised Ordinances of Honolulu 1990 ("Types of infrastructure to be shown on public infrastructure map"), as amended, is amended by amending subsection (a) to read as follows:

"(a) Symbols for the following types of public improvement projects shall be shown on the public infrastructure maps, provided they meet the applicability criteria specified in Section 4-8.4:

- (1) Corporation yard;
- (2) Desalination plant;
- (3) Drainageway (open channel);
- (4) Energy generation facility;
- (5) Fire station;



A BILL FOR AN ORDINANCE

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- (6) Government building;
- (7) Golf course (municipal);
- (8) Electrical transmission line and substation (above 46kV but less than 138kV);
- (9) Park;
- (10) Police station;
- (11) Parking facility;
- (12) Water reservoir;
- (13) Sewage treatment plant;
- (14) Solid waste facility;
- (15) Transit corridor;
- (16) Transit station;
- (17) Major collector or arterial roadway;
- [(17)] (18) Sewage pump station; and
- [(18)] (19) Potable water well."

SECTION 4. In Section 3, ordinance material to be repealed is bracketed. New material is underscored. When revising, compiling or printing this ordinance for inclusion in the Revised Ordinances of Honolulu, the revisor of ordinances need not include the brackets, the bracketed material or the underscoring.



A BILL FOR AN ORDINANCE

SECTION 5. This ordinance shall take effect upon its approval.

INTRODUCED BY:  
[Signature]  
[Signature]  
[Signature]  
[Signature]  
[Signature]  
[Signature]

DATE OF INTRODUCTION:

OCT 19 2006

Honolulu, Hawaii

Councilmembers

APPROVED AS TO FORM AND LEGALITY:

[Signature]  
Deputy Corporation Counsel

DISAPPROVED this 1<sup>st</sup> day of December, 2006.

[Signature] - VETOED  
MUFU HANNEMANN, Mayor  
City and County of Honolulu

(OCS/100406/ct)

CITY COUNCIL  
 CITY AND COUNTY OF HONOLULU  
 HONOLULU, HAWAII  
 CERTIFICATE

ORDINANCE 06-50

BILL 82 (2006)

Introduced: 10/19/06 By: DONOVAN DELA CRUZ

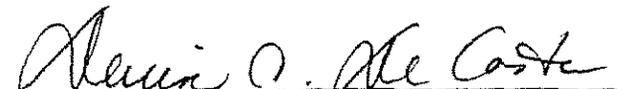
Committee: ZONING

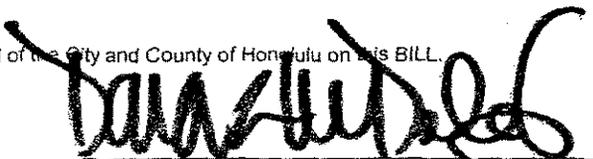
Title: A BILL FOR AN ORDINANCE RELATING TO REQUIREMENTS FOR TRANSIT STATIONS.

Links: [BILL 82 \(2006\)](#)  
[CR-452](#)

COUNCIL	10/25/06	BILL PASSED FIRST READING AND REFERRED TO COMMITTEE ON ZONING.			
	APO Y	CACHOLA Y	DELA CRUZ Y	DJOU Y	GARCIA Y
	KOBAYASHI Y	MARSHALL Y	OKINO Y	TAM Y	
ZONING	10/31/06	CR-452 - BILL REPORTED OUT OF COMMITTEE FOR PASSAGE ON SECOND READING.			
SPECIAL COUNCIL	11/1/06	BILL PASSED SECOND READING AND REFERRED TO ZONING COMMITTEE. CR-452 ADDED TO THE AGENDA AND ADOPTED.			
	APO Y	CACHOLA Y	DELA CRUZ Y	DJOU Y	GARCIA Y
	KOBAYASHI Y	MARSHALL Y	OKINO Y	TAM N	
PUBLISH	11/4/06	PUBLIC HEARING NOTICE PUBLISHED IN THE HONOLULU STAR-BULLETIN.			
PUBLISH	11/10/06	SECOND READING NOTICE PUBLISHED IN THE HONOLULU STAR-BULLETIN.			
		BILL RE-REFERRED FROM ZONING COMMITTEE TO DIRECT REFERRAL TO COUNCIL FLOOR DUE TO THE TIMELY PASSAGE OF THIS BILL. (CC-235 DATED 11/8/06)			
COUNCIL/PUBLIC HEARING	11/15/06	PUBLIC HEARING CLOSED AND BILL PASSED THIRD READING.			
	APO Y	CACHOLA Y	DELA CRUZ Y	DJOU Y	GARCIA Y
	KOBAYASHI Y	MARSHALL Y	OKINO E	TAM N	

I hereby certify that the above is a true record of action by the Council of the City and County of Honolulu on this BILL.

  
 DENISE C. DE COSTA, CITY CLERK

  
 DONOVAN M. DELA CRUZ, CHAIR AND PRESIDING OFFICER

ORDINANCE NO. 06-50

CITY COUNCIL  
CITY AND COUNTY OF HONOLULU  
HONOLULU, HAWAII

CERTIFICATE

I hereby certify that Bill 82 returned vetoed by the Honorable Mufi Hannemann, Mayor of the City and County of Honolulu, on December 1, 2006, was taken up by the Council for reconsideration on December 22, 2006; and, at the same meeting, APPROVED by the said Council, the veto of the Mayor to the contrary notwithstanding by the following vote:

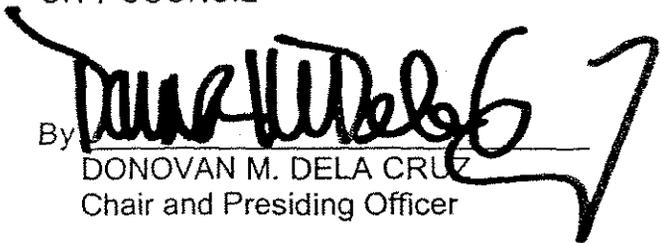
AYES: Councilmembers Apo, Cachola, Djou,  
Kobayashi, Marshall, Dela Cruz - 6.

NOES: Councilmembers Garcia, Okino, Tam - 3.

Further, pursuant to Section 3-203 of the Revised Charter of Honolulu and the foregoing action by the said Council, Bill 82 is duly enacted an Ordinance by this certification.

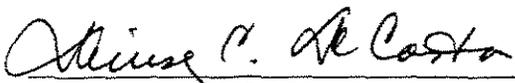
Dated, Honolulu, State of Hawaii, this 22nd day of December, 2006.

CITY COUNCIL

By 

DONOVAN M. DELA CRUZ  
Chair and Presiding Officer

ATTEST:

  
DENISE C. DE COSTA  
City Clerk

06-50



Exhibit B  
SUMMARY OF COMMENTS

Exhibit B  
**SUMMARY OF COMMENTS RECEIVED ON FIRST DRAFT**  
 (this does not include comments unrelated to the bill directly)

Commentor	Comment	DPP Response
<b>CITY AGENCIES AND INDIVIDUALS</b>		
DPP In-House Changes		Amend Sec. 21.9-100-1(a)(1): "The general objectives for the particular TOD special district in terms of overall <u>economic revitalization</u> , neighborhood character, reflecting unique community historic and other design themes. . . ."
		Amend Sec. 21.9-100-1(a)(2): "Recommended special district boundaries around each transit station that take into account natural topographic barriers, extent of market interest in redevelopment, and <u>the benefits of transit, including the potential to take advantage of the benefits of transit, including increase in transit ridership</u> . . . ."
		Amend Sec. 21.9-100-1(c): "The planning process shall consider economic and market analyses and infrastructure analyses, including capacities of water, [sewer] <u>wastewater</u> , and roadway systems. . . ."
	Reference to "rail transit."	Replaced with "rapid transit." This is the term recently adopted under the PIM ordinance and used by the development plans.
City Councilmembers Donovan Dela Cruz and Ann Kobayashi	Amend Section 1 Findings and Purpose, paragraph 2: as follows: " <u>When the transit [rail] technology is selected</u> . . ."	Amended paragraph as follows: "[If rail technology is selected,] Appropriate transit-oriented development ("TOD") land use regulations along the alignment

Commentor	Comment	DPP Response
		and around the <u>rapid</u> transit stations will be crucial.”
	Amend Section 21-9.100, paragraph 1 as follows: “Special districts shall be established around [rail] transit stations. . .”	Amended as follows: “Special districts shall be established around [rail] <u>rapid</u> transit stations . . .”
	Amend Section 21-9.100-2(d) as follows: “Design provisions that encourage use of <u>the fixed-guideway system</u> [rail transit], buses, bicycling, walking, and other non-automobile forms of transport.”	For consistency reasons above, revised language to: “Design provisions that encourage use of [rail] <u>rapid</u> transit, buses, bicycling, walking, and other non-automobile forms of transport . . .”
Deborah Kim Morikawa, Dept. of Community Services	Amend Section 21-9.100 as follows: “. . . TOD can provide more walkable communities, <u>enhancement of neighborhood character, and convenient access to daily needs such as medical, dental, in-home and community based support service, commercial, educational, spiritual, social and food services; physical fitness and wellness facilities; and recreational activities and volunteer opportunities which promote community engagement.</u> ”	Redrafted language reads: “. . . TOD can provide more walkable communities, convenient access to daily <u>household</u> needs as well as special events, and enhancement of neighborhood character.” The above is sufficient to provide direction without unduly specifying each desired activity.
	Amend Section 21-9.100.1(a)(4) as follows: “Potential opportunities for affordable housing <u>with supportive services.</u> ”	Agree. Section to read: “Potential opportunities for affordable housing, <u>and as appropriate, with supportive services.</u> ” Not all affordable housing requires supportive services, and this should not unnecessarily limit the kind of affordable housing that could be provided.
	Add Section 21-9.100.1(a)(6) as follows: “ <u>The composition of the resident population and anticipated changes over time.</u> ”	Amend Section 21-9.100-1(c): “The <u>population</u> , economic and market analyses . . .”
	Add Section 21-9.100-2(i) as follows: “ <u>Design which promotes safety, community interaction, and provides elder friendly amenities such as places to stop and rest.</u> ”	Amend Section 21-9.100-2(d) as follows: “Design provisions that encourage use of rail transit, buses, bicycling, walking, and other non-automobile forms of transport that are <u>safe and convenient.</u> ”

Commentor	Comment	DPP Response
	Neighborhood Boards should be the designated "point" of control for development of neighborhood plans relative to TOD.	While we support participation by Neighborhood Boards, they do not have "control" responsibilities, as they are advisory bodies, and they may not have the time to be the point of control.
	To the extent possible, multiple uses in the same building should be allowed.	Section 21-9.100-2(a) already states, "Allowances for a mix of land uses, both vertically and horizontally."
	Incentives should be considered for low-cost housing, especially for the very low-income and older adults.	Section 21-9.100-1(a)(4) already requires neighborhood TOD plans to address opportunities for affordable housing. In addition, Section 21-9.100-2(b) states, "Density and building height limits that may be tied to the provision of community amenities, such as public open space, affordable housing, and community meeting space."
	Areas around stations should provide green space, grocery store, pharmacy, bank/ATM, medical clinic, food court, adult day/child care, parking.	Already addressed under neighborhood plans, under Section 21-9.100-1(a)(3), although not to the level of detail suggested.
<b>STATE AGENCIES AND INDIVIDUALS</b>		
Clyde W. Namu'o, Office of Hawaiian Affairs	Concerned with possible effects of gentrifying local communities. Strategies include community-based approaches toward development. Affordable housing options help ensure local members are not forced out. The possibility of unearthing burials and other cultural resources should be a concern.	Agree with comments. As already noted under Section 21-9.100-1, the bill places heavy attention on a community-based approach, notes opportunities for affordable housing, and acknowledges the need to defer to cultural and historic resources.
Sam Callejo, University of Hawai'i System	Amend section 21-9.100-1(b) as follows: "The planning process shall be inclusive, open to residents, businesses landowners, community organizations, <u>educational</u> institutions and others.	Agree.

Commentor	Comment	DPP Response
<p>E. Gordon Grau, Ph.D., University of Hawai'i Sea Grant College Program</p>	<p>The bill should use ¼- or ½ mile zones around each station.</p>	<p>Agree. Section 21-9.100-1(a)(2) to read: "Recommended special district boundaries around each transit station that take into account natural topographic barriers, extent of market interest in redevelopment, and potential to increase transit ridership; <u>typically these boundaries are from ¼ mile to ½ mile from each station. . .</u>"</p>
	<p>A minimum density or similar wording should be included.</p>	<p>Disagree. Each neighborhood has different levels of existing densities and we believe any increase in density should be decided in a public process, rather than as an across-the-board threshold. Further, existing zoning may already provide significant increase in "intensity" that hasn't been used to date.</p>
	<p>Incentives should be provided to avoid gentrified enclaves. Affordability must be treated as a requirement.</p>	<p>Section 21-9.100-2(b) links density and height limits to affordable housing. We do not agree that affordable housing must be a requirement. There are some neighborhoods that have an imbalance in housing, and would really benefit from more market housing to achieve a better balance. Also, there are some uses—e.g. institutional ones—that cannot easily accommodate any housing.</p>
	<p>Each Neighborhood TOD plan should have a runoff management component.</p>	<p>The city already has Stormwater Management rules that apply to all developments. However, if drainage is a particular concern in a neighborhood, drainage programs and projects can be recommended in the TOD plan.</p>
	<p>Mixed use provisions should be stronger; it is critical that mixed use constitute the majority of TOD districts, and should be required, with incentives for developers</p>	<p>While we agree that neighborhoods surrounding transit stations should have a mixed use character, we do not believe mixed use should be mandatory on a lot-</p>

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	who meet mixed use criteria.	by-lot basis. There are some uses, such as schools and other institutions that can provide high levels of transit ridership and neighborhood amenities, but would be considered single uses.
Peter Rappa, University of Hawai'i Environmental Center	The bill does not specifically address urban (reduced) street standards or a focus on pedestrian orientation or urban drainage/water quality concepts.	Duly noted. The TOD plans are not intended to substitute for comprehensive planning, but if particular concerns related to drainage and water quality are raised during the neighborhood planning process as they relate to TOD, then the plan will recommend new programs and projects to address the needs.
	The bill lacks a stand-alone section with a clear definition of transit-oriented development.	Open to concise suggestions, but seems sufficiently addressed under opening paragraph under Section 21-9.100, which states the objectives of the regulations.
	Regarding Page 1, first sentence of paragraph 2, TOD regulations would be crucial whether rail is selected or not.	Amended paragraph as follows: "[If rail technology is selected,] Appropriate transit-oriented development ("TOD") land use regulations along the alignment and around the <u>rapid</u> transit stations will be crucial."
	Key concepts currently in the Section 13-9.3, ROH, have been rearranged under this bill.	Yes.
	Under Section 21-9.100, substitute "intense" with "efficient", and "household" for "shopping".	Agree.
	Add a new paragraph to provide general guidance on the extent of TOD districts to discourage abuse and ensure clarity.	We do not agree with the level of suggested specificity (i.e. "2,640 feet straight-line radius") is appropriate. However, agree to amend Section 21-9.100-1(a)(2): "Recommended special district boundaries around each transit station that take into account natural topographic barriers, extent of

Commentor	Comment	DPP Response
		market interest in redevelopment, and potential to increase transit ridership; <u>typically these boundaries are from ¼ mile to ½ mile from each station.</u>
	It is unclear whether TOD zoning will be an additional layer or whether it will override existing zoning.	TOD zoning would be a type of special districts, like Waikiki. This is why this new section of the LUO is called "Transit-oriented development (TOD) special districts." Thus, as noted in Section 21-9.100-1(a)(3) the TOD regulations could override existing regulations or supplement them.
	Add a new provision that once adopted, the TOD plan shall govern existing zoning, subdivision and policy provisions. Or, the city council shall consider such changes at the time of adoption of the neighborhood plan.	Changes to other plans and codes require separate legislative or rule-making actions. Realistically, the department does not have the resources to draft changes to downstream codes, policies, and standards at the same time the plan itself is being considered.
	There should be an attempt to limit participation to those who live or do business in the community, or at least give community members primacy in developing plans.	Our approach is to be inclusive rather than exclusive. We have people participating in our Waipahu TOD planning process who no longer live there, but continue to care for their "hometown." We see no reason to discourage their participation.
	Add a provision that the city council must adopt implementing ordinances within 60 days or shall be deemed adopted. If this is unworkable, then a provision should be adopted to ensure TOD plans take precedence over existing provisions.	Automatic adoption should not be considered for something as important as this. Where appropriate, TOD plans can direct changes to existing zoning, but we believe the plans will not be detailed enough to serve as code standards.
	Section 9.100-2(c) should mention shared use of parking.	Under the LUO terminology, "joint use of parking" includes shared use.
	Minimum requirements for TOD special districts should include design standards for streets, sidewalks, crosswalks, transit	Details such as these are premature in advance of neighborhood plans.

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	interface facilities, on-street parking, bicycle access and other access and circulation elements to ensure "complete streets."	
	Modify Section 9.100-2(h) by adding <u>Urban landscaping . . .</u> "	This clarification may add confusion as there may be a desire to emphasize xeriscape or endemic landscaping or other themes.
	Add provisions for sustainable practices in storm water management.	This is beyond TOD legislation, and better addressed via other regulatory avenues, such as the city's Stormwater Quality Standards. However, a TOD plan can specify storm water management strategies and projects for the subject neighborhood.
<b>OTHERS</b>		
American Planning Association	Provide a definition of "transit-oriented development", such as: TOD is development with a functional relationship to transit allowing it to achieve synergies that are more efficient and cost effective by contributing to increased ridership. TOD implies a collaboration between interests that converge at transit stations, including the transit agency, the local government, private developers, residents, workers and riders. TOD may be any physical development which takes advantage of the foot traffic of transit riders, and which is oriented and designed to integrate with the transit operations in a way that increases ridership. This creates a symbiotic relationship. TOD development is generally compact and dense; includes a mix of uses and is designed with high-quality, pedestrian-oriented urban design	Many of these elements are already in the bill. Rather than dwelling on a definition, the bill focuses on TOD objectives.

Commentor	Comment	DPP Response
	streetscapes.	
	Expand on the benefits on TOD in the purpose section; i.e. provide mobility choice, increase public safety, increase transit ridership, reduces rates of vehicle miles traveled, increase household disposable income by reducing transportation costs, reduce air pollution and energy consumption, conserve land and open space, decrease infrastructure costs, stimulate economic development, contribute to more affordable housing, promote public health by encouraging walking.	Amending Sec. 21-9.100 opening paragraph as follows: “. . . While taking advantage of more efficient use of land, TOD can provide more walkable, <u>healthier, economically vibrant</u> communities, convenient access to daily needs as well as special events, and enhancement of neighborhood character, <u>while increasing transit ridership.</u> ”
	Clarify that TOD zoning will override existing zoning that are already under special districts, such as Waikiki, and whether TOD zoning will override subdivision regulations.	Agree for need to clarify; to reduce potential of conflicting regulations, propose to add new TOD regulations to any existing special district regulations, rather than creating a separate set of regulations. Add new opening paragraph under Section 21-9.100: <u>“Where a transit station is located within or adjacent to an existing special district, provisions for TOD shall be added to the existing special district provisions, as recommended by the neighborhood TOD plan.”</u> TOD zoning will not override the subdivision ordinance and rules. However, under the neighborhood TOD plan, recommendations can be adopted that will direct such changes.
Jackie Boland, AARP Hawaii	Amend Section 21-9.100, 1 <sup>st</sup> paragraph: “. . . TOD <u>must</u> [can] provide more walkable communities.”	This section describes what TOD objectives are, and is not project review criteria. If a project does not contribute to a more walkable neighborhood, it is not TOD.
	At minimum, there should be at least one	Our neighborhood planning processes

Commentor	Comment	DPP Response
	public meeting for neighborhood TOD planning, with a review committee, and a list-serve of interested groups and individuals who are provided notice of all community meetings at least 2 weeks prior to any meeting.	generally include a minimum of 3 community meetings. However, these proposals seem to extend beyond neighborhood TOD planning, are quite specific, and may overlap the state sunshine law. They may be more appropriate under an ordinance governing general planning processes.
	Amend Section 21-9.100-2(d): "Design provisions that [encourage use of rail transit, buses, bicycling, walking, and other non-automobile forms of transport] <u>ensure safe, comfortable, and convenient travel by foot, bicycle, transit and auto, regardless of age and ability.</u>	Proposal may be over-reaching, as it has no parameters. ADA requirements already cover basic access, but agree to amend provision as follows: "Design provisions that encourage use of [rail] <u>rapid</u> transit, buses, bicycling, walking, and other non-automobile forms of transport <u>that are safe and convenient.</u> "
	Add reservations for affordable housing that ensures a percentage of existing residents can continue to live in the neighborhood and pay the same percentage of their gross income they are paying now, and that there will be a mix of land uses and affordability.	Agree with the sentiment, but this is better addressed in the neighborhood plans themselves. There are some neighborhoods that have an imbalance in housing, and would really benefit from more market housing to achieve a better balance.
	Define the minimum area around station that will be the TOD zone.	Section 21-9.100-1(a)(2) amended: "Recommended special district boundaries around each transit station that take into account natural topographic barriers, extent of market interest in redevelopment, and potential to increase transit ridership; <u>typically these boundaries are from ¼ mile to ½ mile from each station.</u> "
	The neighborhood planning process should address the following in detail: walkable street design elements, the mix of land use with square footage for community services and recreation, and infrastructure to support needs of those with disabilities	The bill addresses these elements except that it will not require standards for community services and recreation, although the plans may do so. Provisions for disabled are already addressed by other laws and regulations.

Commentor	Comment	DPP Response
Charles Carole	<p>and bicyclists.</p> <p>The TOD ordinance should require a listing of existing businesses, residences and type of population characters (sic) in the potential TOD area; require a relocation plan; require financial costs and strategies for CIP and city share of public and private partnership; require TOD plans to be submitted to neighborhoods at least 60 days prior to submittal to city planning commission and require city council to adopt within 90 days of receipt.</p>	<p>It is not clear whether the requested listing would be in the plan or zoning regulations, but individual listings would seem to raise privacy issues.</p> <p>If a relocation plan seems to be in order, this would be covered under Section 21-9.100.1(a)(5). But at this point, the city has no plans to instigate any displacement of businesses and residents to effectuate TOD.</p> <p>Financial costs and strategies are noted under Section 21-9.100.1(a)(5).</p> <p>We disagree with proposed timeframes; current proposals are in keeping with existing policies for other adoption processes.</p>
The Chamber of Commerce of Hawaii	<p>The "Community's" role should include strong voices from the business community.</p>	<p>Agree. Section 21-9.100-1(b) already reflects the desire to include businesses in the planning process.</p>
	<p>Sufficient incentives in the forms of special financing, expedited permitting, bonus density and other means of support will be provided to alleviate risk factors.</p>	<p>"Density incentives" added to Section 21-9.100-1(a)(3).</p> <p>Financing opportunities added to 21-9.100-1(a)(5) section.</p> <p>Permit expediting is beyond the scope of this bill.</p>
	<p>It is not clear who will create the plan and what public input there will be as the plan is being developed.</p>	<p>The plans are expected to be developed by the city. However, the bill does not preclude a landowner, or group of stakeholders from preparing a plan.</p> <p>Section 21-9.100-1(b) clearly states that the planning process shall be inclusive, and open to all, not limited to input at the end of the process.</p>
	<p>Neighborhood plans should be viewed as a long term "end-state" vision which may occur gradually over a long period of time.</p>	<p>Agree that TOD does not generally happen overnight. However, we do not want to encourage these plans to lie dormant; they are intended to be actively</p>

Commentor	Comment	DPP Response
		implemented, although physical construction may not be seen immediately.
	TOD efforts should not take away from needed support in other districts.	Agree. This is not the city's intent, and why we have asked for additional resources to support the TOD program.
	Different standards for each of the transit stations will become a regulatory nightmare for both city staff and landowners/developers.	The city is committed to responding to each neighborhood, and to the extent appropriate, "place-making". Intrinsicly, this implies regulations tailored to the neighborhood. Nevertheless, to the extent that similar standards and incentives can be adopted for different stations, we will attempt to do so.
Kamehameha Schools	The TOD planning process should be structured such that the city and other parties work closely together.	Added to Section 21-9.100-1(b): "The planning process shall be inclusive, open to residents, businesses, landowners, community organizations, <u>government agencies and others.</u> "
	Our goal should include achieving higher performance in our next-generation built environment by incorporating and inventing the best TOD principles and practices for our city.	Our objective is to promote the best TOD principles and practices for our city.
Mitchell S. Nakagawa, Hawaii Bicycling League	Add language to Section 21-9.100-2 to incorporate the design of intergovernmental objectives, such as share of trips by bicycling, pedestrian, and feeder bus routes.	While the intent is to have TOD programs coordinated with transportation plans, it is not the intent to include elements into the TOD plan which fall under other planning efforts, such detailed mobility objectives that go well beyond TOD <u>planning and projects.</u>
	Amend Section 21-9.100-2(e): Guidelines on building orientation, [and] parking location and <u>bicycle parking location.</u> "	Agree as follows: "Guidelines on building orientation and parking location, <u>including bicycle parking.</u> "
	Amend Section 21-9.100, 1 <sup>st</sup> paragraph: "... TOD can provide more walkable communities, <u>safe bicycling environments,</u>	Agree.

Commentor	Comment	DPP Response
Tom Heinrich	convenient access . . ."	
	Are charter amendments required for TOD?	Planning and zoning functions, including TOD planning and zoning will continue to remain with the Department of Planning and Permitting, so no charter amendment is needed.
	Replace references to "rail transit" with "fixed transit route" or "fixed guideway system."	Reference to "rail transit" has been replaced with "rapid transit."
	It is unconstitutional to require council to set a deadline for city council action, and also a violation of City Charter Sec. 601511 and -1514.	Precedence has been set by the 45-day deadline required for action by city council on affordable housing projects.
	Are the special districts "formal amendments to the LUO at Article 9 or a new article"? Are the TOD plans intended to be formal amendments to the LUO or some lesser status?	The proposed TOD special districts will be added to LUO Article 9. The TOD plans themselves will NOT be included in the LUO, but would be similar in status as our Special Area Plan for Kalaeloa which was adopted by city council resolution, after deliberation by the Planning Commission. The Kalaeloa Special Area Plan includes direction for zoning the area.
	Must the TOD plans be adopted by the city council to be effective? Can the city council make changes or refuse to adopt the plan?	The plans would automatically be approved if the city council takes no action in 60 days. If the city council denies it, the plans would have no official city status, and the department would not initiate any TOD zoning without an approved plan. The city council can refuse to adopt the plan or modify it.
	Amend Page 1, Sec 1, 1 <sup>st</sup> paragraph: "The council finds that Honolulu [is initiating] <u>has initiated</u> a major <u>mass transit</u> transportation . . . for the [Project] project . . ."	No objection.
Amend Page 1, Section 1, 2 <sup>nd</sup> Paragraph: "[If rail] <u>Whatever</u> technology is selected[,]	Amended paragraph as follows: "[If rail technology is selected,] Appropriate	

Commentor	Comment	DPP Response
	for the <u>high-capacity transit fixed guideway system</u> , appropriate transit-oriented development ("TOD") land use regulations along the alignment and around the transit stations will be crucial.	transit-oriented development ("TOD") land use regulations along the alignment and around the <u>rapid</u> transit stations will be crucial."
	Amend Page 1, Section 1, 3 <sup>rd</sup> Paragraph: "It has been consistently noted about successful TOD programs of other cities . . . Therefore, [for Honolulu to] <u>to assure that Honolulu will</u> have a successful TOD program . . ."	No objection.
	Amend Page 1, Section 1, 4 <sup>th</sup> paragraph: "This <u>TOD planning process</u> will implement the Oahu General Plan and applicable regional development plans."	Modification: "This <u>TOD planning and implementation process</u> will implement the Oahu General Plan and applicable regional . . ."
	Amend Page 1, Section 1, 5 <sup>th</sup> paragraph: "With the potential for such a significant and positive change in development patterns, it is crucial that proper planning guidance be given, well before the <u>transit stations are constructed.</u> "	No objection.
	Amend Section 21-9.100 to better articulate the principles of transit-oriented development.	Open to specific suggestions.
	There is no description of the process to adopt the TOD special districts.	There are no specific procedures in the LUO for amending the LUO, and there is no reason to make TOD special districts an exception.
	Amend Page 2, Section 3: "[Section 21-9,] Chapter 21, Article 9, Revised Ordinances of Honolulu is amended to add a new [subsection] <u>section</u> as follows: . . ."	Duly noted.
	Amend page 2, Section 21-9.100, 1 <sup>st</sup> paragraph: "Special districts shall be established around [rail] transit stations to foster . . ."	Reference to "rail transit" has been replaced with "rapid transit."

Commentor	Comment	DPP Response
	Amend Page 2, Section 21-9.100, 2 <sup>nd</sup> paragraph: "Each special district shall be based on a neighborhood TOD plan that <u>specifically</u> addresses transit-oriented development. [The plans may include more than one (1) station, and], may address other community concerns and opportunities[,], and <u>may include more than one transit station.</u> "	Duly noted.
	Amend Page 3, Section 21-9.100-1(a): "Prior to the [adoption] <u>establishment</u> of any TOD special district, there shall be <u>prepared and adopted</u> a [Neighborhood] <u>neighborhood TOD [Plan] plan</u> which serves . . ."	Duly noted.
	Amend Page 3, Section 21-9.100-1(a)(1): ". . . strategies, general urban design forms, and [cultural and] <u>historic, scenic and cultural resources . . .</u> "	Duly noted.
	Add to Page 3, Section 21-9.100-1(a)(2): " <u>A plan may address other community concerns and opportunities.</u> "	Not required. Already covered under second paragraph, under Section 21-9.100.
	Amend Page 3, Section 21-9.100-1(a)(3): "A plan may include more than one transit station."	Not required. Already covered under second paragraph, under Section 21-9.100.
	Amend Page 3, Section 21-9.100-1(a)(3): "Recommended zoning controls, including architectural and community design principles, open space requirements, parking standards, and [either] <u>other</u> modifications to existing zoning requirement or new zoning precincts, as appropriate."	Agree clarification may be useful: "Recommended zoning controls, including architectural and community design principles, open space requirements, parking standards, and [either] <u>other</u> modifications to existing zoning requirement, <u>or the establishment of new zoning precincts, as appropriate.</u> "
	Amend Page 3, Section 21-9.100-1(a)(3): "[Form-based zoning may be considered. Prohibition of specific uses shall be considered.] <u>The prohibition of specific uses and form-based zoning may be</u>	Disagree. The two issues are so divergent that they should be kept separate.

Commentor	Comment	DPP Response
	considered.	
	Amend Page 3, Section 21-90.100-1(c): "Where appropriate, public-private [partnership] <u>partnering</u> opportunities shall be [investigated] <u>evaluated</u> OR <u>explored</u> OR <u>examined</u> ."	Duly noted.
	Amend Page 3, Section 21-9.100-1(f): delete the Arabic numbers in parens, (45) and (60).	Duly noted.
	Amend Page 4 section numbering to Section <u>21-9.100-2</u> .	Agree
	Amend Page 4, Section 21-9.100-2(c): "[Elimination or reduction] <u>Reduction or elimination</u> of the number of required off-street parking spaces, [including expanded] <u>and expansion of</u> allowances for joint use of parking spaces."	Existing language is adequate.
	Amend Page 4, Section 21-9.100-2 (d): "Design provisions that encourage use of [rail] <u>mass transit</u> OR <u>the fixed guideway transit system</u> , buses, [bicycling] <u>bicycles</u> , walking, and other non-automobile forms of transport."	Amended to read as follows: "Design provisions that encourage use of [rail] <u>rapid transit</u> , buses, bicycling, walking, and other . . ."
	Amend Page 4, Section 21-9.100-2(e) by adding period at end of sentence.	Agree.
	Amend Page 4, Section 21-9.100-2(f): "Identification of important neighborhood historic, scenic, and cultural landmarks, and controls [for protecting and enhancing] <u>to protect and enhance these resources</u> ."	Agree.
	Amend Page 4, Section 21-9.100-2(h): "Landscaping requirements that enhance the pedestrian experience, [support] <u>promote transit station identity</u> , and complement adjacent structures."	Disagree. "Promote" does not convey the same intent as "support".
	Amend Page 4, Section 4: ". . . the revisor of ordinances [need] <u>shall</u> not include the brackets, the bracketed materials, or the	Bill reflects the language used in other ordinances.

Commentor	Comment	DPP Response
Kiersten Faulkner, Historic Hawai'i Foundation	underscoring.”	
	There should be a statement public policy purpose and intent; the goals and objectives of the planning process should be stated; e.g. preservation of resources, determining appropriate uses, design, densities, public facilities, financing, phasing, and transparent community-based planning process.	Add sentiments to Section 1 of the bill.
	A description of where the plans may be developed should be included.	Typical radius around stations has been added to Section 21-9.100-1(a)(2).
	Pre-existing parameters or assumptions regarding zoning standards, such as densities or uses should be stated.	There are none.
	TOD areas should be considered as part of a Transfer of Development Rights (TDR) program to protect agriculture and rural areas.	The department does not support a regional TDR program involving agricultural lands, because these lands have no urban development rights to give away.
	TOD planning should include knowing the location and capacity, existing and future, of nearby community facilities, such as day care centers, schools, and community centers.	Duly noted.
	Is a minimum requirement for mix of uses necessary? Will each development have a required or target level of mix of housing, commercial or employment?	No. This will be decided through the planning process, the resulting zoning standards, and market forces. We have not found TOD research that advocates that every lot have a prescriptive formula requiring mixing; this is too fine-grained for zoning regulations.
	The infrastructure analysis should include recommendations for financing and phasing.	Section 21-9.100-1(a)(5) addresses this and has been amended to include: “. . . and new financing opportunities.”
There should be a comprehensive approach to traffic patterns at the outset, including street system, parking, and management strategies.	Some of these elements are part of the planning and engineering and EIS processes already underway. They will also be covered under the neighborhood	



Commentor	Comment	DPP Response
		TOD plans, as well as the downstream zoning code and other code changes.
	All special districts should include allowances for receiving transfer of development rights (TDR) from areas designated for historic or natural resource protection.	The Land Use Ordinance already has a TDR program for historic properties. Since 1997, it has only been used once, as a kind of "land-banking" measure, and no floor area has been transferred to date.
	The special districts should have design parameters for the stations.	The design of stations will be determined by DTS.
	The special districts should include identification of significant view sheds, protection of coastal areas and other resources, site locations for community facilities, and building design parameters, and address signs and wayfinding.	The bill allows for these considerations.
Lisa Ferentinos, Kokua Kalihi Valley Comprehensive Family Services	Amend Section 21-9.100-2 to include "complete streets."	There is sufficient provision in the current bill language to address "complete streets."
	A percentage of the existing residents should be assured that they can continue to live in the neighborhood.	We recognize the concerns regarding gentrification, and while we can encourage or require a certain amount of affordable housing, it is difficult to develop zoning controls for specific residents, especially related to rent prices. We do agree that the city can consider incentives to the private sector to retain existing affordable housing.
	Section 21-9.100-1(b) should specify how the development of the plans will be inclusive. There should be at least one public meeting to educate the community and receive public input. Zoning provisions should have multiple opportunities for multi-stakeholders groups to be involved. Consider forming a review committee.	Typically, the department's planning process involves at least 3 community meetings. However, we hesitate to specify a number because we would like to be open to various ways of community participation, and by singling out community-wide meetings, it may inadvertently ignore other methods of participation. Zoning provisions will have multiple opportunities for comment, including public hearings at both the city

Commentor	Comment	DPP Response
Ronald Lockwood	Amend the bill to acknowledge aging demographics, the housing and transportation needs of this aging population, and the needs of the disabled.	planning commission and city council. Agree with the comment, but the bill's language is sufficient to address this concern.
	There can be NO net loss in affordable housing. The City must provide incentives to assist the private sector in providing affordable units, and allowing current residents to remain in the community.	Duly noted.
	Development must include sidewalks that are easy to navigate, public restrooms, resting places, building setbacks, ground floor use, few blank walls, and modified sidewalk crossing and design speeds.	Bill language provides for these considerations. Please note, however, that sidewalk crossings and design speeds are beyond the scope of zoning controls.
	The 45-day time required for neighborhood board to comment on the TOD plan should be extended to 90 days.	The 45-day deadline is already the deadline for neighborhood board comments on LUO permits. Further, the plans will be developed in an open process, and all those who participated in the process will be well aware of the final product before the deadline for review is started. Lastly, the neighborhood boards can still comment at the planning commission public hearing, and as many as 5 times at the city council.
	Delete references to "rail."	Reference to "rail" has been replaced with "rapid."
	There should be size mentioned for the size of the TOD district.	Agree. Section 21-9.100-1(a)(2) amended to: "Recommended special district boundaries around each transit station that take into account natural topographic barriers, extent of market interest in redevelopment, and potential to increase transit ridership; <u>typically</u> these boundaries are from ¼ mile to ½ mile from each station."

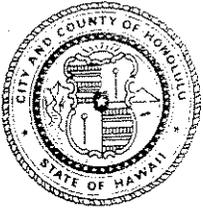
Commentor	Comment	DPP Response
	Infrastructure needs must include mitigation of transit pollution run-off.	DTS is responsible for transit, and will comply with all environmental requirements.
	Green LEED design for transit stations should be included.	DTS is responsible for transit station design.
Julie Shioshita, One Voice for Livable Islands	TOD should include integrated, attractive, safe areas for everyone, including pedestrian and bicycle users; design that promotes healthy activities such as walking and cycling; and designs that accommodate all levels of mobility.	Agree. Existing bill language accommodates comments. Section 219.100-2(d) amended as follows: "Design provisions that encourage use of [rail] <u>rapid</u> transit, buses, bicycling, walking, and other non-automobile forms of transport <u>that are safe and convenient.</u> "
	There should be multiple opportunities for stakeholders to be involved in special district zoning provisions.	The TOD plans will be developed in an open process, and all those who participated in the process will be well aware of the final product before the deadline for review is started. All stakeholders can comment at the planning commission public hearing, and as many as 5 times at the city council.
	Consider forming a review committee, with One Voice for Livable Islands as a member.	Duly noted.
	Maintain a list-serve of interested groups and individuals and provide notice of all community meetings at least two weeks in advance.	Request is duly noted.
	Amend Section 9.100-2 to detail the concept of "Complete Streets."	Current bill language is adequate to provide for this consideration in the planning and zoning processes. Please note, however, that neighborhood plans and zoning codes do not dictate the construction standards for rights-of-way.
	Add policy: "Bicycling and walking facilities will be incorporated into all transportation projects unless exceptional circumstances exist."	The Land Use Ordinance is not the appropriate vehicle for this policy.

Commentor	Comment	DPP Response
Mary Steiner, The Outdoor Circle	Do not increase height limits.	We agree that in some areas, an increase in height limits could intrude into significant public view planes. However, this is not true in all cases, and prefer to have height increases deliberated under the planning process, rather than prohibit them across the board at the outset.
	It is critical to require TOD to install landscaping to soften visual impacts of the projects. Tree removal should require a permit, and for every tree removed, two replacement shade trees should be required.	The bill already requires that landscaping issues must be addressed. Also, as is currently required in other special districts, TOD special districts could require approval for removal of trees of a certain size, and even require replacement(s).
	Sign regulations cannot be compromised.	Sign controls are not mentioned in the bill, but as in other special districts, could be amended, either providing for more signage, or adding further restrictions.
	Require open spaces in the initial planning, and not as afterthoughts.	This is already reflected in Section 21-9.100-1(a)(3) in that open space requirements are to be part of the plan—well before zoning is formulated and building permits are sought.
Katie Anderson, ULI Hawaii	Add “quality of life” and “Place-making opportunities” into Findings and Purpose section.	Agree. Sixth paragraph amended. “. . . <u>The planning process shall be open, inclusive and visionary, and shall strive to increase the quality of life through rejuvenated community character (including “place-making” opportunities), preservation and enhancement of historic, cultural, scenic, natural and other community resources and landmarks, while understanding the relationship between zoning, financing, and real estate market dynamics.</u> ”
	Mention ¼-mile and ½ mile radius as guidelines for primary and secondary TOD planning.	Agree. Section 21-9.100-1(a)(2) amended to: “Recommended special district boundaries around each transit

Commentor	Comment	DPP Response
		station that take into account natural topographic barriers, extent of market interest in redevelopment, and potential to increase transit ridership; <u>typically these boundaries are from ¼ mile to ½ mile from each station.</u> When appropriate, recommendations may define a “core area” and transition boundaries.”
	Is the community’s role advisory only?	Yes.
	What kinds/forms of incentives will be provided to landowners and developers?	At this point, we are open to all suggestions. While we are aware of typical incentives offered in other TOD programs, we are not assuming they are the ones that are needed here; e.g. density bonuses.
	What happens to development plans that are already being developed for properties near planned stations?	We assume this refers to private sector plans, and not the city’s regional development plans. Through the public planning process, we expect developers to share their plans with the greater community, and attempts will be made to incorporate them to the extent that they fulfill TOD objectives.
	Will density allowances under existing zoning be “grandfathered” as a minimum density under TOD zoning?	Such an allowance will be part of the planning and zoning discussions.
	Consider a planning process that will provide for strong market/economic analysis.	Section 21-9.100-1(c) already calls out for economic and market analyses as part of TOD planning.
	Approach TOD as a phased, multi-generational process; don’t try to achieve the “End State Plan” by means of one “mega project.”	Agree.
	Consider an infrastructure systems planning process that can provide critical data to the TOD plans.	Duly noted.
	How will coordinated TOD projects be	We have no pre-made decisions or

Commentor	Comment	DPP Response
	developed for areas with many small land owners?	strategies on redevelopment in areas with small lots, which may not necessarily even be an obstacle to good TOD. All developments, small or large, will have to comply with TOD special district requirements, and to that extent, they will be coordinated. Under the neighborhood planning process, if land assembly is considered imperative, we would consider incentives for private sector assembly.
	Who will write the special district zoning ordinances?	DPP will draft language, which will be commented on by the Planning Commission, and could be modified by the city council.
Jessica Wooley	Each TOD special district should address safe pedestrian and bicycle paths and facilities.	Amended Section 21-9.100-2(d) to underscore safety and convenience of all connections to transit stations.

Exhibit C  
ALL COMMENTS RECEIVED



# CITY COUNCIL

CITY AND COUNTY OF HONOLULU  
HONOLULU, HAWAII 96813-3065 / TELEPHONE 547-7000

OFFICE OF THE CLERK  
CITY & COUNTY OF HONOLULU

07 NOV 30 A 8 51

RECEIVED

November 29, 2007

Mr. Henry Eng, Director  
Department of Planning and Permitting  
City & County of Honolulu  
650 South King Street, 7<sup>th</sup> Floor  
Honolulu, Hawaii 96813

RE: Transit Oriented Development (TOD) Draft Planning and Zoning Bill

Dear Director Eng:

Listed below for your consideration, are our comments and proposed amendments to the draft TOD bill.

Pursuant to Ordinance 07-001, the Council reserves the right to select the technology for the locally preferred alternative. As the Council has not yet exercised that right, the following amendments are presented to reflect any reference to the technology selections:

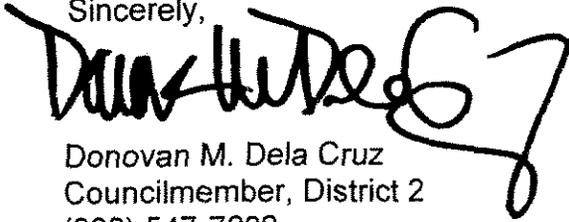
- Section 1. Findings and Purpose—paragraph 2  
“When the transit [rail] technology is selected, appropriate transit-oriented development (“TOD”) land use regulations along the alignment and around the transit stations will be crucial.”
- Section 3. Sec. 21-9.100 Transit-oriented development (TOD) special districts—paragraph 1  
“Special districts shall be established around [rail] transit stations to foster more livable communities that take advantage of the benefits of transit; specifically, reducing transportation costs for residents, businesses and workers.”
- Section 3. Sec. 9.100-2 TOD special district requirements—paragraph (d)

Mr. Henry Eng  
November 29, 2007  
Page 2

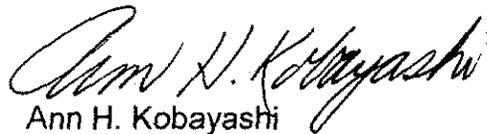
"Design provisions that encourage use of the fixed-guideway system [rail transit], buses, bicycling, walking and other non-automobile forms of transport.

Thank you for the opportunity to comment on the draft bill. Should you have any questions or concerns, please feel free to contact either one us.

Sincerely,



Donovan M. Dela Cruz  
Councilmember, District 2  
(808) 547-7002



Ann H. Kobayashi  
Councilmember, District 5  
(808) 547-7005

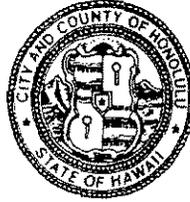
cc: All Councilmembers  
City Planning Commission

DEPARTMENT OF COMMUNITY SERVICES  
CITY AND COUNTY OF HONOLULU RECEIVED

715 SOUTH KING STREET, SUITE 311 • HONOLULU, HAWAII 96813 • AREA CODE 808 • PHONE: 768-7762 • FAX: 768-7792

'07 DEC -3 A11 :05

MUFI HANNEMANN  
MAYOR



DEBORAH KIM MORIKAWA  
DEPT OF PLANNING DIRECTOR  
AND PERMITTING  
CITY & COUNTY OF HONOLULU MARK K. OTO  
SENIOR ADVISOR

December 3, 2007

**MEMORANDUM**

To: Henry Eng, Director  
Department of Planning and Permitting

From:   
Deborah Kim Morikawa, Director  
Department of Community Services

Subject: Comments on Transit-Oriented Development (TOD) Draft Planning and Zoning Bill

The Honolulu Committee on Aging, an advisory body to the City and County of Honolulu, and its subcommittee, the Planning and Education Subcommittee, was provided an opportunity to review the draft TOD bill. While they were unable to formally meet to adopt recommendations, individual members of the Committee offered comments and observations, and they are summarized and attached herewith.

In addition, in anticipation of demographic changes resulting in increasing percentages of older residents in the City and County of Honolulu and the critical issues that will emerge with a maturing society, we suggest that language be incorporated in the bill that supports and promotes access to supportive services needed to allow them to function with as much independence as possible. Measures which promote wellness and integration will reduce dependency, disability, and unnecessary and increasingly unaffordable medical and long term care costs to society. The following language is suggested:

Sec. 21-9.100 Transit-oriented development (TOD) special districts

Special districts shall be established ... TOD can provide more walkable communities, enhancement of neighborhood character, and convenient access to daily needs such as medical, dental, in-home and community based support service, commercial, educational, spiritual, social and food services; physical fitness and wellness facilities; and recreational activities and volunteer opportunities which promote community engagement.

Section 21-9.100.1 Neighborhood TOD plans

- (a)(4) Potential opportunities for affordable housing with supportive services.
- (a)(6) The composition of the resident population and anticipated changes over time.

Section 9. 100-2 TOD special district minimum requirements

- (i) Design which promotes safety, community interaction, and provides elder friendly amenities such as places to stop and rest.

Should you have any questions, please contact Mrs. Karen Miyake of our Elderly Affairs Division at 768-7708.

### Transit Oriented Bill

*Comments provided by EAD staff, HCOA and PEAS committee members were primarily general in nature and not specific to any particular section of the bill.*

#### Comments

- A. There should be a moratorium on new development and redevelopment within  $\frac{1}{4}$  to  $\frac{1}{2}$  mile of the preferred transit alignment until such time as the Environmental Impact Statement and Preliminary Engineering Plans are completed to allow for thoughtful consideration of the implementation of TOD.
- B. To the extent possible, Historic Districts should be preserved.
- C. Federal Guidelines in regard to transit stations should be used to make sure they are accessible to all.
- D. Initial talks relative to the general guidelines to be developed for TOD should include all citizens, businesses, representatives of the tourist industry as well as tourists, elected officials and other interested parties because this system will bring benefit to all, not just those living along the proposed route. Seniors should be encouraged to actively participate.
- E. Neighborhood Boards should be the designated "point" of control for development of neighborhood plans relative to TOD.
- F. Talks and decisions regarding transit stations that may impact residents of more than one Neighborhood Board should include representatives from all Neighborhood Boards involved.
- G. To the extent possible, multiple uses in the same building (e.g. residential/commercial/retail/medical/long-term care options that support independence) should be allowed in areas in close proximity to the route to encourage use of the transit system.
- H. To the extent possible, incentives should be considered for development of low-cost housing, especially for the very low-income and older adults, in close proximity (within walking distance) to the transit route.
- I. There should be one fee for all modes of transit, similar to what the City has currently implemented during the demonstration project for The Boat.
- J. Feeder buses or shuttles that are ADA compliant should be used in neighborhoods to shuttle residents to the transit stations.
- K. All stations should have a minimum subset of amenities:
  - a. Multiple levels of access to include at a minimum stairs, ramps and elevators. Escalators could be used but should be in addition to elevators and ramps as wheelchairs, strollers, walkers, etc. are not allowed on escalators.
  - b. Restrooms to include ADA accessible requirements.
  - c. Security – This needs to be a warm body. There should be security in the stations and surrounding areas as well as on board the trains.

- d. Information/Cashier to provide information, change depending on the method used for accessing transit system (pass, credit card, cash).
- e. Route Maps to provide information if attendant/security are not available, about station locations, route times.
- f. Lists, routes and times of connecting buses.
- g. Neighborhood Maps at each stations.
- h. PA System – to announce wait times for next train, important information, emergency situations.
- i. Emergency Equipment – 1<sup>st</sup> aid kit, fire extinguisher, AED.
- j. Trash/Recycling Bins.
- k. Sitting/waiting areas
- L. Architectural Features – Stations should fit in the neighborhood – e.g. if in an historical district, should maintain those standards.
- M. Areas Around Stations – As space allows, provide for commercial/retail space in support of the neighborhood and those using the stations:
  - a. Green space
  - b. Grocery Store
  - c. Pharmacy
  - d. Bank/ATM
  - e. Medical Clinic
  - f. Food Court
  - g. Adult Day/Child Care
  - h. Parking for autos, motorcycles, mopeds and bicycles. If parking is not adjacent to the station, then shuttles to/from the parking areas should be provided.

### General Questions

- A. To what extent will the Neighborhood Boards be involved?
- B. How many parcels and how much land area is anticipated to be condemned for the actual transit alignment?
- C. If the City condemns parcels, will the City retain control over the development of those parcels?
- D. Preliminary information indicates that construction is anticipated to begin in 2009 and will be completed in 2012. Is this timeline for the initial route only?
- E. How long will it take to add on the spurs to the airport and Waikiki?

### Request

- A. Is there an overlay map that shows the current proposed alignment, Council Districts and the Neighborhood Board districts? If there is, may we have a copy? If not, could one be produced?

DEPARTMENT OF DESIGN AND CONSTRUCTION  
CITY AND COUNTY OF HONOLULU

RECEIVED

860 SOUTH KING STREET, 11<sup>TH</sup> FLOOR  
HONOLULU, HAWAII 96813  
Phone: (808) 768-8480 • Fax: (808) 523-4567  
Web site: [www.honolulu.gov](http://www.honolulu.gov)

'07 DEC -6 P3:09

MUFI HANNEMANN  
MAYOR

DEPT OF PLANNING  
AND PERMITTING  
CITY & COUNTY OF HONOLULU



EUGENE C. LEE, P.E.  
DIRECTOR

CRAIG I. NISHIMURA, P.E.  
DEPUTY DIRECTOR

November 30, 2007

MEMORANDUM

TO: HENRY ENG, FAICP, DIRECTOR  
DEPARTMENT OF PLANNING AND PERMITTING

FROM:  EUGENE C. LEE, P.E., DIRECTOR

SUBJECT: TRANSIT-ORIENTED DEVELOPMENT (TOD)  
Draft Planning and Zoning Bill

Thank you for giving us the opportunity to comment on the above Draft Planning and Zoning Bill for the TOD.

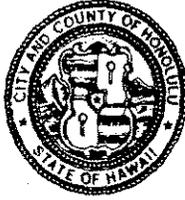
The Department of Design and Construction has no comments to offer at this time.

ECL:lt (233268)

DEPARTMENT OF EMERGENCY MANAGEMENT  
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET  
HONOLULU, HAWAII 96813

Mufi Hannemann  
MAYOR



November 1, 2007

DEPT. OF EMERGENCY  
MANAGEMENT  
CITY & COUNTY OF HONOLULU

PETER J. S. HIRAI  
ACTING DIRECTOR

07 NOV -2 09:40

RECEIVED

TO: HENRY ENG, FAICP, DIRECTOR  
DEPARTMENT OF PLANNING AND PERMITTING

FROM: PETER J. S. HIRAI, CEM, ACTING DIRECTOR  
DEPARTMENT OF EMERGENCY MANAGEMENT

A handwritten signature in cursive script, appearing to read "Peter J. S. Hirai", is written over the typed name in the "FROM:" field.

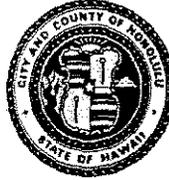
SUBJECT: TRANSIT-ORIENTED DEVELOPMENT (TOD)  
Draft Planning and Zoning Bill Available for Review

Thank you for the opportunity to review and comment on the above mentioned Transit-Oriented Development (TOD) bill. The Department of Emergency Management does not have any comments at this time.

HONOLULU FIRE DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**

636 South Street  
Honolulu, Hawaii 96813-5007  
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

MUFI HANNEMANN  
MAYOR



November 29, 2007

KENNETH G. SILVA  
FIRE CHIEF

ALVIN K. TOMITA  
DEPUTY FIRE CHIEF

DEPT. OF PLANNING  
AND DEVELOPMENT  
CITY & COUNTY OF HONOLULU

07 NOV 30 A8:54

RECEIVED

TO: HENRY ENG, FAICP, DIRECTOR  
DEPARTMENT OF PLANNING AND PERMITTING

FROM: KENNETH G. SILVA, FIRE CHIEF

SUBJECT: TRANSIT-ORIENTED DEVELOPMENT (TOD)  
DRAFT PLANNING AND ZONING BILL

The Honolulu Fire Department (HFD) would like to express a few concerns relating to the upcoming TOD bill.

All development should take into account access by our fire apparatuses. Future development and parking restrictions should ensure horizontal and vertical clearance. Means of ingress and egress to areas surrounding transit stations should also be considered.

Responding to emergencies relating to an elevated transport and its associated platforms will bring new strategies to mitigate medical, fire, and rescue calls.

The HFD would like to provide input in future planning meetings and hearings to express our concerns.

Should you have any questions, please contact Assistant Chief Eric L. Adams Jr. of our Planning and Development section at 723-7106.

Handwritten signature of Kenneth G. Silva in cursive.

KENNETH G. SILVA  
Fire Chief

KGS/EA:ms

**BOARD OF WATER SUPPLY**

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HI 96843



October 31, 2007

MUFI HANNEMANN, Mayor

RANDALL Y. S. CHUNG, Chairman  
SAMUEL T. HATA  
ALLY J. PARK  
ROBERT K. CUNDIFF  
MARC C. TILKER

LAVERNE T. HIGA, Ex-Officio  
BARRY FUKUNAGA, Ex-Officio

CLIFFORD P. LUM  
Manager and Chief Engineer

DEAN A. NAKANO  
Deputy Manager and Chief Engineer

TO: HENRY ENG, FAICP, DIRECTOR  
DEPARTMENT OF PLANNING AND PERMITTING

ATTN: KATHY SOKUGAWA

FROM: for  KEITH S. SHIDA, PRINCIPAL EXECUTIVE  
CUSTOMER CARE DIVISION

SUBJECT: YOUR MEMORANDUM OF OCTOBER 23, 2007 REQUESTING  
COMMENTS TO THE DRAFT TRANSIT-ORIENTED DEVELOPMENT  
BILL

DEPT. OF PLANNING AND PERMITTING  
CITY & COUNTY OF HONOLULU

07 NOV -7 P2:55

RECEIVED

We have no objections to the draft Transit-Oriented Development Bill.

If you have any questions, please contact Robert Chun at 748-5443.

LINDA LINGLE  
GOVERNOR



RECEIVED

RUSS K. SAITO  
COMPTROLLER

BARBARA A. ANNIS  
DEPUTY COMPTROLLER

(P)1259.7

'07 NOV -5 P2:06

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P.O. BOX 119, HONOLULU, HAWAII 96810

NOV - 2 2007  
DEPT OF PLANNING  
AND PERMITTING  
CITY & COUNTY OF HONOLULU

Mr. Henry Eng, FAICP  
Director of Planning and Permitting  
City and County of Honolulu  
650 South King Street, 7<sup>th</sup> Floor  
Honolulu, Hawaii 96813

Dear Mr. Eng:

Subject: Transit-Oriented Development (TOD)  
Draft Planning and Zoning Bill Available for Review

Thank you for the opportunity to review this draft bill. The Department of Accounting and General Services offers no comments on the draft bill but requests that upon approval of this ordinance, we be notified of any Neighborhood TOD Plan that may affect any of our facilities, including our facilities near the Capitol, Aloha Stadium and Waipahu.

If you have any questions, please call me at 586-0400 or have your staff call Mr. Bruce Bennett, of the Public Works Division, at 586-0491.

Sincerely,

RUSS K. SAITO  
State Comptroller

LINDA LINGLE  
GOVERNOR

MAJOR GENERAL ROBERT G. F. LEE  
DIRECTOR OF CIVIL DEFENSE

EDWARD T. TEIXEIRA  
VICE DIRECTOR OF CIVIL DEFENSE



PHONE (808) 733-4300  
FAX (808) 733-4287

STATE OF HAWAII  
DEPARTMENT OF DEFENSE  
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE  
3949 DIAMOND HEAD ROAD  
HONOLULU, HAWAII 96816-4495

November 16, 2007

CITY & COUNTY OF HONOLULU  
PLANNING AND PERMITTING DEPARTMENT

07 NOV 19 P 1:00

RECEIVED

Mr. Henry Eng, FAICP, Director  
Department of Planning and Permitting  
City and County of Honolulu  
650 South King Street, 7<sup>th</sup> Floor  
Honolulu, Hawaii 96813

Dear Mr. Eng:

Thank you for your letter of October 23, 2007, which introduces the Transit-Oriented Development (TOD) draft planning and zoning bill. We appreciate the opportunity to provide comments from a State Civil Defense (SCD) perspective at this early stage of the planning process. We have reviewed the draft bill and provide the following comments:

- 1) When planning the location of transit stops, it is crucial for the safety of the passengers that the stops and surrounding development are built outside of tsunami evacuation zones. The concern is that, during a destructive tsunami, the structure supporting the transit system would become part of the debris field and cause extensive damage, not to mention the loss of the system.
- 2) In order to alert passengers of approaching tsunamis or other hazards, SCD highly recommends that both audible and visual warning displays be included in each transit station. The warning displays should be able to provide emergency information to passengers, including hearing impaired and visually impaired personnel. This warning system would aid in instructing passengers where and how to evacuate should the need arise.
- 3) Due to Homeland Security considerations and for critical infrastructure protection, SCD highly recommends that the transit stations be built with blast barriers designed to prevent automobiles from approaching too closely. Items such as cement planters, etc, incorporated into the design would provide a level of deterrence from attack.

The SCD staff is available at 733-4300 to discuss each of these recommendations in more detail as the transit route and designs progress.

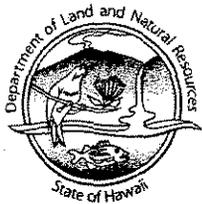
Sincerely,

EDWARD T. TEIXEIRA  
Vice Director of Civil Defense

LINDA LINGLE  
GOVERNOR OF HAWAII



LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

November 16, 2007

CITY & COUNTY OF HONOLULU

07 NOV 20 AM 1:35

RECEIVED

Department of Planning & Permitting  
City & County of Honolulu  
650 South King Street 7th Floor  
Honolulu, Hawaii 96813

Attention: Ms. Kathy Sokugawa

Gentlemen:

Subject: Draft Transit-Oriented Development (TOD)

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Engineering Division, Division of State Parks, Commission on Water Resource Management, Division of Boating & Ocean Recreation, Division of Forestry & Wildlife, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

*Morris M. Atta*  
for Morris M. Atta  
Administrator

LINDA LINGLE  
GOVERNOR OF HAWAII



LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

RECEIVED  
LAND DIVISION  
2007 OCT 29 P 3:44

DEPT. OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

October 25, 2007

MEMORANDUM

TO:

**DLNR Agencies:**

- ~~Div of Aquatic Resources~~
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division - Oahu District/Keith Chun

FROM:

Russell Y. Tsuji *Maile*

SUBJECT: Draft transit-Oriented Development (TOD) bill

LOCATION: Island of Oahu

APPLICANT: City & County of Honolulu, Department of Planning & Permitting

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 15, 2007.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed:

Date:

*10/26/07*  
*[Signature]*

OCT26\*07AM10:46BOR DTU



RECEIVED

07 OCT 26 AIO: 34



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

COMMISSION ON WATER  
RESOURCE MANAGEMENT

October 25, 2007

MEMORANDUM

*From*  
TO:

**DLNR Agencies:**

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division - Oahu District/Keith Chun

RECEIVED  
LAND DIVISION  
2007 NOV -6 P 3:19  
OFFICE OF THE ATTORNEY GENERAL  
STATE OF HAWAII

*To*  
FROM:

FROM: *R* Russell Y. Tsuji  
SUBJECT: Draft transit-Oriented Development (TOD) bill  
LOCATION: Island of Oahu  
APPLICANT: City & County of Honolulu, Department of Planning & Permitting

*Maile*

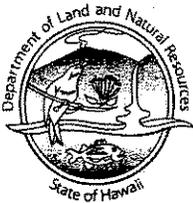
Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 15, 2007.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: W. Rayford  
Date: 11/06/07



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

RECEIVED  
STATE PARKS DIV

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

07 OCT 26 P1:41

October 25, 2007

MEMORANDUM

- TO: **DLNR Agencies:**
- Div. of Aquatic Resources
  - Div. of Boating & Ocean Recreation
  - Engineering Division
  - Div. of Forestry & Wildlife
  - Div. of State Parks
  - Commission on Water Resource Management
  - Office of Conservation & Coastal Lands
  - Land Division - Oahu District/Keith Chun

RECEIVED  
LAND DIVISION  
2007 NOV -2 A 3:15  
DEPT OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

FROM: *Russell Y. Tsuji*  
 SUBJECT: *Draft transit-Oriented Development (TOD) bill*  
 LOCATION: Island of Oahu  
 APPLICANT: City & County of Honolulu, Department of Planning & Permitting

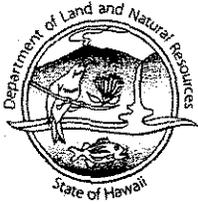
Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 15, 2007.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: *Russell Y. Tsuji*  
 Date: 10/31/07



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

October 25, 2007

MEMORANDUM

- TO: **DLNR Agencies:**
- Div. of Aquatic Resources
  - Div. of Boating & Ocean Recreation
  - Engineering Division
  - Div. of Forestry & Wildlife
  - Div. of State Parks
  - Commission on Water Resource Management
  - Office of Conservation & Coastal Lands
  - Land Division - Oahu District/Keith Chun

107 OCT 26 PM 02:13 ENGINEERING

RECEIVED  
LAND DIVISION  
2007 NOV -3 A 3:35  
DEPT OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

FROM: *Russell Y. Tsuji*  
 SUBJECT: *Draft transit-Oriented Development (TOD) bill*  
 LOCATION: Island of Oahu  
 APPLICANT: City & County of Honolulu, Department of Planning & Permitting

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 15, 2007.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: *Keith Chun*  
 Date: 11/2/07



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

October 25, 2007

MEMORANDUM

- TO: **DLNR Agencies:**
- Div. of Aquatic Resources
  - Div. of Boating & Ocean Recreation
  - Engineering Division
  - Div. of Forestry & Wildlife
  - Div. of State Parks
  - Commission on Water Resource Management
  - Office of Conservation & Coastal Lands
  - Land Division – Oahu District/Keith Chun

RECEIVED  
 LAND DIVISION  
 2007 OCT 29 P 3:43  
 DEPT. OF LAND &  
 NATURAL RESOURCES  
 STATE OF HAWAII

FROM: *Russell Y. Tsuji*  
 SUBJECT: Draft transit-Oriented Development (TOD) bill  
 LOCATION: Island of Oahu  
 APPLICANT: City & County of Honolulu, Department of Planning & Permitting

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 15, 2007.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed:  
Date:

*Paul J. Conry*

**PAUL J. CONRY, ADMINISTRATOR  
DIVISION OF FORESTRY AND WILDLIFE**

OCT 29 2007



**STATE OF HAWAII**  
**OFFICE OF HAWAIIAN AFFAIRS**  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

CITY & COUNTY OF HONOLULU

RECEIVED  
NOV 27 AM 1:46  
FAX (808) 594-1865

November 20, 2007

HRD07/3315

Henry Eng  
Department of Planning and Permitting  
City and County of Honolulu  
650 South King Street, 7<sup>th</sup> Floor  
Honolulu, HI 96813

**RE: Transit-oriented Development (TOD) Draft Planning and Zoning Bill Available for Review**

Dear Mr. Eng,

The Office of Hawaiian Affairs (OHA) is in receipt of your October 23, 2007 letter sharing the City's Transit-oriented Development (TOD) bill and offers the following comments:

The TOD bill takes a positive and forward step toward controlling development in urban Honolulu; especially the urban corridor that now extends from 'Ewa to Hawaii Kai. The introduction of smart growth land use strategies, such as TOD has the potential to preserve and protect against urban sprawl. Poor land use decisions in the past have seen our agricultural and open space areas on O'ahu disappear.

The benefits of TOD development in association with the anticipated fixed guideway system and the Locally Preferred Alternative (LPA) on O'ahu will help shape both planned and existing communities. Proper zoning around the LPAs are one land use tool that will guide TOD.

Our office's only concerns with TOD involve the possible effects of gentrifying local communities. Strategies should include community-based approaches toward redevelopment in existing communities. Affordable housing options for local residents, including repurchasing or leasing options for the local community members are promising solutions to help ensure they will not be forced out of their communities.

Our office is constitutionally mandated to preserve and protect natural and cultural resources on behalf of Native Hawaiians. Any future development or redevelopment plans would have the potential to disturb natural or cultural resources. Redevelopment around urban Honolulu has unearthed numerous cultural resources which have put many Native Hawaiian community members and developers in very difficult situations. Many lessons have been learned from these

Henry Eng  
Department of Planning and Permitting  
November 20, 2007  
Page 2

redevelopments. For example, the redevelopment of the parcel situated at the current location of the Ke'eaumoku Street Wal-Mart unearthed numerous Native Hawaiian burials. This case is still in litigation. Also, currently, the Whole Foods development on Auahi Street in Kaka'ako have unearthed more than 60 burials and has halted construction numerous times, costing General Growth Properties large sums of money.

In summary, the redevelopment of properties in the urban corridor of Honolulu, in previously disturbed ground, has unearthed numerous burials. With the potential TOD as a result of the LPA, the possibility of unearthing Native Hawaiian burials and other cultural resources should be a concern and a likely possibility in all redevelopment projects as a result of TOD. Proper planning and consultation will help mitigate any conflicts that may arise in the future.

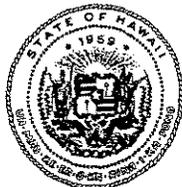
Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jason Jeremiah, Policy Advocate-Preservation, Native Rights, Land and Culture, at (808) 594-1816 or [jasonj@oha.org](mailto:jasonj@oha.org).

Aloha,



Clyde W. Nāmu'o  
Administrator

LINDA LINGLE  
GOVERNOR



BRENNON T. MORIOKA  
ACTING DIRECTOR

Deputy Directors  
MICHAEL D. FORMBY  
FRANCIS PAUL KEENO  
BRIAN H. SEKIGUCHI

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

STP 8.2711

December 13, 2007

Mr. Henry Eng  
Director  
Department of Planning and Permitting  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Attention: Ms. Kathy Sokugawa

Dear Mr. Eng:

Subject: Draft Planning and Zoning Bill  
Transit-Oriented Development (TOD)

The State Department of Transportation (DOT) submits the following comments on the subject draft bill.

1. The conditional requirements for review and analysis of roadway and infrastructure improvements are appreciated. This allows DOT the opportunity for timely comment on transit alignment and transit station impacts to State highway facilities. Address of DOT concerns will ensure optimal decision-making.
2. The DOT requests to be consulted whenever the transit system/stations cross, abut or are in close proximity to State highways and rights-of-way, regardless of the passage of the bill.

We appreciate your courtesy and cooperation in providing the draft bill for our review and comments.

Very truly yours,

A handwritten signature in black ink, appearing to read "Brennon T. Morioka".

BRENNON T. MORIOKA, PH.D., P.E.  
Acting Director of Transportation

DEPT OF PLANNING  
AND PERMITTING  
CITY & COUNTY OF HONOLULU

07 DEC 17 P2:45

RECEIVED



UNIVERSITY  
of HAWAII\*  
SYSTEM

RECEIVED Sam Callejo  
Vice President for Administration

'07 DEC -3 A10 :46

November 30, 2007

DEPT OF PLANNING  
AND PERMITTING  
CITY & COUNTY OF HONOLULU

Mr. Henry Eng, FAICP, Director  
Department of Planning and Permitting  
City and County of Honolulu  
650 South King Street, 7<sup>th</sup> Floor  
Honolulu, HI 96813

Dear Director Eng:

Subject: Transit-Oriented Development (TOD)

Thank you for the opportunity to comment on the draft TOD bill. The University of Hawaii will be impacted directly on at least three and possibly five of its O'ahu campuses and therefore are very interested in the development and ramifications of this bill.

As a minimum, we would recommend amending sections (b) and (e) of Section 21-9.100-1 Neighborhood TOD Plans as follows:

(b) - add "educational institutions" after "community organizations."

(e) - add "university campus Long Range Development Plan (LRDP)" after "special area plan."

In addition, although your memo asked us to review and comment on the draft TOD, the University of Hawaii would like to encourage the City Council and City Administration to include Transit Stations at the West O'ahu, Leeward Community College and Mānoa campuses. The experts at your symposium who have experienced the development and operations of transit systems all said that it is the right thing to do since you have a very large ridership to a specific destination for a lot of different venues. In addition to our students, faculty and staff the ridership will include the public attending educational, cultural, art and sporting events.

We thank you for this opportunity to be a part of the planning of this historical project.

Respectfully submitted,

Sam Callejo  
Vice President for Administration  
University of Hawaii System

c: President David McClain  
Vice President John Morton  
Chancellor Virginia Hinshaw, UHM  
Chancellor Gene Awakuni, UHWO  
Chancellor Ramsey Pedersen, HCC  
Interim Chancellor Manuel Cabral, LCC

2444 Dole Street, Bachman Hall  
Honolulu, Hawaii 96822  
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# UNIVERSITY OF HAWAI'I

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Sea Grant College Program  
School of Ocean and Earth Science and Technology

November 30, 2007

Mr. Henry Eng  
Director  
Department of Planning and Permitting  
City and County of Honolulu  
650 South King St., 7<sup>th</sup> Floor  
Honolulu, HI 96813

Dear Mr. Eng:

I am writing to offer comments on the draft planning and zoning bill on Transit Oriented Development (TOD). I am very pleased that this bill has been proposed, as it is a critical element in maximizing the potential benefits of a transit system to Oahu. The introduction of enabling legislation to begin the community planning process, and to bring the stakeholders together to participate in it, is extremely timely. TOD will be necessary regardless of whether rail or fixed guideway is ultimately the technology of choice, and the sooner this planning process begins, the better.

Overall, the bill as drafted is very good, reflecting a strong awareness of the important themes and subjects that must be addressed by a TOD special district planning process. Its emphasis on community involvement in the design of the TOD special districts will enable the affected neighborhoods to define development around their transit stops in a way that is most likely to produce a set of outcomes that are acceptable to each TOD special district's stakeholders.

I believe the bill could use some specific improvements that would provide clearer instructions to the participants in these discussions. Incorporating the following five points will help provide more solid "ground rules" for the participants in TOD special district planning process, and provide greater certainty to developers who will eventually have to navigate the approval and construction process. In the attached appendix, I have also provided some additional points which may constitute a more detailed approach to the TOD ordinance than is practical at this time, but may enhance the product of these public meetings and the subsequent permitting process.

## **1. TOD Special District Size**

The bill should provide an initial benchmark definition of how large the TOD special districts will be, rather than leave this up to the community process. Research from other regions

demonstrates that a large share of residents and workers take transit within ¼ mile radius (about a seven-minute walk) of each station. Within a ½ mile, significant numbers still walk to the station given the right conditions and land-use policy benchmarks. However, the ½-mile standards should probably differ from those in the ¼ mile zone. This model has been successful in a number of other places at ensuring a smooth transition from the more intensive development near stations to the detached single family neighborhoods that often surround them.

When developing their vision for these neighborhoods, stakeholders should know exactly what area is under consideration in each case. This would save a lot of time and confusion at the beginning of these meetings trying to decide how big the TOD special district should be, and what is included and excluded. It will also make it easier for potential stakeholders to decide whether they should participate in the process or not.

I recommend that the bill use either one or both of the benchmarks for ¼- and ½-mile zones around each station in Section 21-9.100-1. These can be considered as starting points for the TOD special district planning process and adjusted to local conditions during that process if necessary.

## **2. Density and Intensity**

TOD succeeds when it produces high-quality centers of more compact development that make transit use attractive and convenient. The bill currently has density as a requirement [Sec.9.100-2 (b)] and permits negotiations on height limits conditional on the provision of affordable housing and other amenities, but does not define any specific targets. For transit systems to be cost effective, average residential density in a corridor needs to be at least 9 households per acre. Development of 20 to 30 units per acre immediately surrounding a station can help achieve this ridership base while preserving the suburban character of many neighborhoods.

Explicitly defining a minimum density in legislation could stir some controversy. However, it can be constructed in a way that minimizes this potential. First, it could be paired with a requirement that 10% of the overlay zone be set aside for public open space. Second, a companion guidebook with images of well designed projects with an average density matching the criteria thresholds could be developed for the neighborhood planning process. If no specific minimums are included in the ordinance, more compact development around transit stops will become extremely difficult to achieve around some stations. In some cases a smaller number of vocal residents will likely see any multi-story building or non-residential use as undermining their neighborhood character. The key for a successful policy is demonstrating how transit-supportive density can be done in a way that enhances neighborhoods.

For these reasons, I suggest you provide some language in the minimum requirements in Section 9.100-2 to ensure that some increased density is permitted in the TOD Special District. I also suggest you use the word "intensity" or "more compact development" rather than the word "density" whenever possible, since these terms carry less baggage.

### 3. Housing Affordability

The cost of housing is a serious issue. Skyrocketing house prices and rents have made living in many parts of Honolulu impossible to many people, including middle-income workers such as teachers, police, nurses and firefighters, who provide essential services. Together with students and recent college graduates, elderly people living on fixed incomes, they are forced to the edges of the city. There, they expend large percentages of their paychecks commuting back into town for work, recreation, education, and services.

In other parts of the country, TOD special districts have experienced skyrocketing property values and rents, as these neighborhoods are increasingly desirable places to live. This could easily happen in Honolulu if we do not make provisions to provide housing at a variety of price points. TOD special districts should not become gentrified enclaves, but should provide housing for all the people who currently work, play, and learn in these communities. A variety of incentives can be provided to ensure this happens, such as accelerated permitting and density bonuses for mixed price-point housing. Affordability must be treated as a requirement if TOD is to be successful, else property values will drive out of these neighborhoods many of the people TOD is intended to serve.

I recommend that "housing at a mix of price points" or "housing affordability" be included in the list of TOD special district minimum requirements in Section 9.100-2.

### 4. Urban Drainage and Water Quality

Declining water quality is a serious and growing source of concern on Oahu. The vast areas of paved or otherwise hardened surface in Honolulu rapidly move runoff into the city storm sewers, carrying contaminants, sediment, and debris out into the ocean. There, they degrade water quality, endangering public health, our coral reefs and other ecosystems, and the tourist industry. The associated lack of recharge to aquifers, although not an immediate source of worry on Oahu, is reaching crisis levels on Maui and will become problem for Honolulu in the future. Of more immediate concern, recent flooding events in the past few years have highlighted the need to take runoff into consideration when planning the urban landscape, particularly with respect to extreme precipitation events.

Because of this, the development of the TOD districts in Honolulu should take the opportunity to address the various strategies that can reduce or limit the negative impacts of runoff. There are some very simple, low-cost, and non-intrusive techniques for retention and treatment of stormwater, including grass swales, ponds, and sidewalk plantings. More complex techniques include the use of green roofs to reduce runoff from building surfaces. All of these have the added benefit of adding natural features and aesthetic value to the urban landscape.

I suggest that you either add language to the TOD special district minimum requirements in Section 9.100-2 stating that each Neighborhood TOD Plan have a runoff management component, or add the words "reduce or eliminate runoff from roofs, roads, sidewalks and other impervious surfaces" to subsection (b).

### 5. Mixed Use

The mixed use requirement needs to be stronger. The current phrase "Allowances for a mix of land uses" in section 9.100-2 (a) could still allow zoning that prohibited mixed use on most of a TOD special district. Currently, the zoning regime in Honolulu allows the segregation of land for exclusive use, which is incompatible with TOD. It is critical that mixed use constitute the majority of these districts, particularly in the immediate vicinity of the station. I suggest that you amend Sec.9.100-2 (a) to say "Mixed land uses for all land within the ¼ mile boundary, and at least 50% of the land between the ¼ mile boundary and the ½ mile boundary." I also suggest that there be density bonuses, accelerated permitting, and other incentives provided for developers who meet mixed use criteria.

To summarize, I want to emphasize that the overall bill is extremely good and applaud your efforts to incorporate the most critical principles of smart growth. It will provide a strong foundation for and guidance to the TOD special district development process. I urge you to consider and include the recommended changes listed above, as they will augment the legislation by providing more structure and stronger language to guide that process. The attached appendix includes additional points that should be addressed at some point in the TOD special district development process, although not necessarily in this bill.

I appreciate the opportunity to comment on the bill. I am available to meet with you to discuss this further or answer any questions you may have. I can be contacted at 956-7031.

Sincerely,



E. Gordon Grau Ph.D.  
Professor, Department of Zoology and  
Director, University of Hawaii Sea Grant College Program

## **APPENDIX**

### **1. Accelerated Permitting**

Even if a Neighborhood TOD plan has been accepted by the applicable neighborhood boards and the City Planning Commission and the City Council, each TOD special district will have to go through the permitting process. This in itself could become extremely arduous procedure involving significant re-review of all the components of each Neighborhood TOD plan, and I urge you to provide for an accelerated permitting process or a parallel permitting process with dedicated staff to undertake the approval of designs and construction projects covered by these plans.

### **2. Parking**

The bill addresses parking explicitly in Sec.9.100-2(c). This issue is central to any TOD ordinance or discussion as it directly affects the degree to which a community is pedestrian-friendly. Off-street parking must be minimized or even eliminated, particularly in downtown areas, because land use must be oriented towards concentrating people, not cars, around the transit stops.

That being said, there may be certain stops along the transit route, particularly at the extreme western end, where the availability of parking may enhance ridership. At the periphery of the system, regular users may be more likely to drive from more far-flung parts of Oahu on the Leeward Side and the North Shore, and want to park near the stops and ride the rest of the way into Honolulu. These drivers should be encouraged to use transit where possible, and providing them parking may be the most effective way, (although the re-routing of buses should be considered first). For this reason, the language requiring the reduction or elimination of off-street parking may be inappropriate for certain transit stops and perhaps made more flexible so that specific stops can acquire permission for limited parking, providing they can provide sufficient proof that ridership will increase and cars will be removed from the roads as a result.

### **3. Other vehicle-related issues**

The principle of reduced parking in the TOD special districts should be extended to include other uses of the land which are largely vehicle-driven and not people-efficient. These uses could include:

- Drive-through fast-food establishments
- Gas stations
- Sales or rental of motorized vehicles
- Auto repair shops
- Car washes
- Boat storage
- Boat repair
- Warehouses and self-storage

In addition, workplaces that subsidize parking and don't support transit use will divert workers away from the transit system. In some TOD plans, employers in the TOD zones are required to reduce parking, charge for parking, or offer employees partially- or fully-

subsidized transit passes. Requirements that address these kinds of workplace incentives help to boost ridership and reduce traffic around transit stops. Tax incentives can also be offered that accomplish the same objective.

#### **4. Pedestrian Issues and Complete Streets**

Current subdivision regulations and related practices in the City require overly wide, high-speed streets and insufficient accommodation for pedestrians and cyclists, as well as greenery and street trees. These streets are unsafe, create an unpleasant environment for pedestrians and bicyclists and are frequently underserved by the bus system. As a result, they encourage the use of cars and discourage the use of alternatives. It must be made clear in the bill that the TOD districts are subject to a different set of standards so that these kinds of high-speed corridors do not negatively impact the drive to greater utilization of the transit system.

The bill should either cite standards or require the TOD special district planning process to develop standards for roads, crosswalks, sidewalks, bike lanes, bus stops, parking, traffic calming strategies, and other items critical to enhancing the pedestrian experience. These standards, often referred to by the planning community as "complete streets" should also include plans for how vehicles, pedestrians, bicyclists, and other users of the transit system would move in and out of the TOD special districts and connect with other parts of the city.

#### **5. Preservation of Open Space**

The first of the ten Principles of Smart Growth is the preservation of open space, farmland, natural beauty, and critical environmental areas. As TOD takes place and denser development occurs, it must serve to enhance the natural beauty of and quality of life in Hawaii. The neighborhoods in Honolulu along the transit route that will benefit from increased density need parks, outdoor gathering places, street trees, and other natural amenities to provide break up the increasingly urban landscape. Although the landscaping and landmarks requirements in the current bill touch on this, there is no statement of principle or language requiring that open space be preserved or created for public use. The bill would be strengthened with the insertion of the phrase "and existing and potential open space" after the word "landmarks" in Sec. 9.100-2 (f).



UNIVERSITY  
of HAWAII  
MĀNOA

November 29, 2007

RG:0141

Mr. Henry Eng, Director  
Department of Planning and Permitting  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Eng:

Draft Transit-Oriented Development Ordinance  
City and County of Honolulu

The Environmental Center review of the draft Transit-Oriented Development Ordinance was conducted with the assistance of Peter Flachsbart, Urban and Regional Planning; Olwen Huxley, Sea Grant; and Jim Charlier, Charlier Associates.

General Comments

The Federal Transit Administration (FTA) considers transit-supportive land use an important criterion for making capital investment funding decisions on 'new starts' public transit projects. FTA's Office of Planning released a set of guidelines and standards on this subject (Office of Planning, 2004). As a result, cities that are planning high-capacity transit systems are now taking a serious look at transit oriented development (TOD) to improve their chances to secure federal funds. For example, both Denver and Seattle compiled case studies of TOD, which are posted on city web sites, to inform the planning process for their transit projects. We believe it would be wise for Department of Planning and Permitting (DPP) to compile a set of case studies of TOD relevant to Honolulu.

The FTA policy change acknowledges that rail investments alone cannot induce transit-oriented development. For example, over \$14 billion was invested in mass transit in the state of California between 1990 and 2000. During the past 30 years, California built more new rail systems, more miles of track, and more transit stations than any other state in America. It has also produced a record number of new TODs in California's major cities. Even so, the dominant land use around the majority of the major bus and rail stations in California is still conventional, automobile-oriented development (e.g., a park-and-ride lot) that does not take full advantage of proximity to high-quality

transit service or provide good pedestrian access to transit stations. Hence, while interest in TOD is significant and growing, the reality is that 'good TOD' is the 'exception and not the rule' at most major transit stations in California (Parker et al., 2002).

In general, this ordinance represents an important and positive step for the City. Developing a TOD ordinance could be an important element of improving the long term sustainability of Honolulu and could, over time, reduce confusion in the development community about what is expected and what will be allowed. The emphasis on community involvement at the neighborhood level seems wise and necessary and would enable land owners, developers and the City to work together with citizens to solve site-specific concerns and issues – a significant improvement over the "submit and review" process in place today.

The proposed ordinance reflects a strong awareness of the important themes and subjects that must be addressed by a TOD special district planning process. Its emphasis on community involvement in the design of the TOD special districts will enable the affected neighborhoods to define development around their transit stops in a way that is most likely produce a set of outcomes that are acceptable to each TOD special district's stakeholders. However, though it talks about: mix of uses; increased density; affordable housing; reduced parking; which is good, it does not specially address urban [reduced] street standards or a focus on pedestrian orientation or urban drainage/water quality concepts. All of these are key parameters to enable successful TOD environments.

In addition, the ordinance lacks a stand-alone section with a clear definition of transit-oriented development. Perhaps the DPP omitted a definition of TOD from the bill, because the planning literature offers many definitions of TOD, in part because there is a wide variety of transit-oriented development in cities with transit. However, this obstacle has not prevented other cities in the United States from adopting a definition of TOD. Cervero et al (2004) compiled definitions of TOD from ten metropolitan areas of the United States, as shown in Table 1 attached to this review. While most definitions of TOD focus on design characteristics of transit-supportive environments, some definitions are based on smart-growth and sustainability principles. Therefore, it should be possible for DPP to craft a working definition of TOD for Honolulu.

In addition to our general comments, we have the following specific comments:

### **Section 1. Findings and Purpose**

The "Findings and Purpose" is very important, because it allows the ordinance to be upheld in court should the bill be challenged. This section appears to be adequate, but it could be strengthened by adding language that recognizes more of the benefits of TOD, as summarized in Table 2 (see attachment).

On page 1 the first sentence of paragraph 2 reads: "If rail technology is selected, appropriate transit-oriented development ("TOD") land use regulations along the alignment and around the transit stations will be crucial."

Such regulations would be crucial whether rail is selected or not. Also, the City should make sure that TOD is not tied unnecessarily to technology so that your ordinance can work in the future as Honolulu continues to grow its transit network. TOD represents a fundamental set of principles that applies to all high capacity transit modes. We suggest terminology such as: "Regardless of which specific transit technology is serving the station area or corridor, appropriate transit-oriented development ("TOD") land use regulations along the alignment and around the transit stations will be crucial."

## Section 2.

This section of the bill amends Section 13-9.3 of the 1990 Revised Ordinances of Honolulu (ROH). The rationale for this amendment is explained in the Q&A attachment. The amendment transfers the "zoning-related provisions of Ordinance 06-50" from Chapter 13, which is the public transit portion of the ROH, to Chapter 21, which is the Land Use Ordinance (LUO) portion of the ROH. The amendment deletes nine statements that could be interpreted as a definition of TOD. The bill does not actually transfer the deleted language verbatim to Chapter 21. Instead, the bill first establishes TOD special districts in Section 21-9.100 of SECTION 3 of the bill and eight minimum requirements of these districts in Section 9.100-2. Four of the minimum requirements of Section 9.100-2, i.e., statements (a) through (d) appear to correspond closely to statements (1) through (4), respectively, of the deleted Section 13-9.3.

Statements (5) through (9) of Section 13-9.3 were not transferred to Section 9.100-2. These five statements are as follows:

- (5) Encourage development of a mixture of market-rate and affordable housing;
- (6) Encourage public-private partnerships in such development;
- (7) Utilize form-based zoning, exemptions, or other alternatives from existing development regulations, and utilize other incentives to encourage such development;
- (8) Encourage activity at a defined community center;
- (9) Encourage public input in the design of each transit station so each station reflects unique community design themes, history, or landmarks.

However, key concepts embodied in these deleted statements appear to surface in Section 21-9.100.1 of SECTION 3 of the bill, which states that a Neighborhood TOD Plan shall be prepared prior to the adoption of any TOD special district. The bill states that each Neighborhood TOD Plan shall have five minimum components, as listed in Section 21-9.100.1(a), and that the planning process shall comply with five requirements, which are stated as items (b) through (f) of Section 21-9.100.1. Taken together, these five components and five requirements appear to capture all five of the deleted

statements of Section 13-9.3, except perhaps statement (8), which encourages activity at a defined community center.

### Section 3

*Section 21-9.100 Transit-oriented development (TOD) special districts* begins with this paragraph: "Special districts shall be established around rail transit stations to foster more livable communities that take advantage of the benefits of transit; specifically, reducing transportation costs for residents, businesses and workers. While taking advantage of more intense use of land, TOD can provide more walkable communities, convenient access to daily shopping needs as well as special events, and enhancement of neighborhood character."

We suggest changing the word "intense" highlighted above to "efficient." (Intense carries negative connotation and does not embody any specific design concept. The real objective is efficiency.) We suggest changing the phrase "shopping needs" to "household needs." The opportunity represented by mixed use density around transit stations extends to a wide range of daily household travel – work, school and recreation – in addition to retail shopping. We also suggest that a paragraph be added to providing general guidance on the extent of TOD districts. This will help discourage abuse and also ensure clarity in terms of the City's intent.

Suggested language could be as follows:

"TOD special districts shall generally be limited to areas within 2,640 feet (straight-line radius) from transit stations. Actual boundaries may vary to reflect topography and landscape, neighborhood boundaries, barriers such as major freeways and arterial streets, and market considerations. Special districts may be divided into a core area and a surrounding transit influence area with different plan provisions as appropriate. Proposed special districts that are much larger than 2,640 feet in radius shall require specific justification based on transportation efficiency."

We note that research from other regions demonstrates that a large share of residents and workers take transit within a quarter mile radius (about a seven-minute walk) of each station. Within a half mile, significant numbers still walk to the station given the right conditions and land-use policy benchmarks. However, the half-mile standards should probably differ from those in the quarter-mile zone. This model has been successful in a number of other places at ensuring a smooth transition from the more intensive development near stations to the detached single family neighborhoods that often surround them. The core area and a transition boundary suggested in Section 21-9.100-1 (a)(2) could be defined as falling within the quarter-mile and half-mile radius respectively with some provision to adjust those limits according to the topography around the station.

*Section 21-9.100-1 Neighborhood TOD plans* includes a list of topics to be addressed in the neighborhood planning leading up to TOD district designation. It is unclear from this section

whether the TOD zoning will be an additional layer or whether it will override existing zoning in areas that are already special districts, such as in Waikiki. Also, it's not clear whether the new TOD ordinance will override subdivision regulations. We suggest adding an item to this list:

"(X) Recommended design standards for streets, sidewalks and crosswalks, transit interface facilities, on-street parking, bicycle access and related elements of public infrastructure required for access and circulation within the TOD district to ensure 'complete streets' and good pedestrian environments."

We further recommend clarifying the intent of adoption with respect to existing City policies, regulations and ordinances. This could be accomplished by adding a new lettered paragraph after current paragraph (e) as follows:

"(x) Once adopted by city council, the provisions of any neighborhood TOD plan shall govern within that district, replacing relevant existing zoning, subdivision and policy provisions. As such the TOD district will become an overlay district within the city with specific governing provisions unique to that district."

We also suggest current paragraph (3) of part (a) be modified by adding the following underlined text:

"(3) Recommended zoning controls, including architectural and community design principles, open space requirements, parking standards, and either modifications to existing zoning requirements or new zoning precincts and subdivision regulations, as appropriate. Form-based zoning may be considered. Prohibition of specific uses shall be considered."

Existing zoning and subdivision regulations have led to the urban sprawl with its negative impacts on O'ahu. Given Hawaii's dependence on foreign oil and the potential new threats to the state from global climate change, many planners and other social commentators feel that urban sprawl is not sustainable. Urban sprawl entails excessive energy, environmental, economic and social costs that will negatively affect future generations (Newman and Kenworthy, 1999; Kunstler, 2005). These costs are more severe on an island such as O'ahu, where planners must accommodate population growth with limited land and public funds for highway improvements and infrastructure extensions for new subdivisions. On the other hand, compromise may be necessary when TOD special districts occur in areas that are already special districts.

*Section 21-9.100-1 Neighborhood TOD plans(b)* allows for the planning process to be inclusive, open to residents businesses, landowners, community organizations and others. There is no limit to who might participate in the community planning processes. This allows people living outside the community to come to the planning meeting to develop neighborhood TOD plans. There

November 29, 2007

Page 6

should be some attempt to limit participation to those who live or do business in the community or at least to give community members primacy in developing plans.

In *Section 21-9.100-1 Neighborhood TOD plans(c)*, we suggest inserting the word demographics to the list of factors that should be considered in the planning process.

It is unclear how *Section 9.100-2 TOD special district minimum requirements* would actually work. The intent should be that the neighborhood TOD plan would be implemented by the City and thus would overwrite existing zoning, subdivision and other provisions and policies. Since under current proposed language the neighborhood plans would be adopted by resolution, there would be further work to do to put in place the provisions of the plans.

We suggest adding new sentences to Section 9.100-2 before the first sentence that currently reads: "Based on the adopted neighborhood TOD plan, each special district shall include, but not be limited to, the following provisions" as follows:

"At the time of adoption by city council of any neighborhood TOD plan, council shall also consider and adopt an ordinance setting specific zoning, subdivision, facility design and other provisions within the TOD district. Such ordinance shall faithfully implement all of the key and relevant provisions of the neighborhood TOD plan and shall create a regulatory environment that is unique to each TOD district."

It may also be appropriate to add another sentence similar to the provision in the plan section along these lines:

"The city council shall adopt the ordinance within sixty (60) days of receipt, or it shall be deemed adopted."

If this is unworkable procedurally, then some similar provision should be drafted to ensure that TOD district plans take precedence over existing provisions of ordinances, regulations and policies. Otherwise there would be potential that the plans developed cooperatively with neighborhoods and land owners would not be truly implemented.

We suggest that paragraph (c) of Section 9.100-2 be modified to add the underlined text:

"(c) Elimination or reduction of the number of required off-street parking spaces, including expanded allowances for shared use and joint use of parking spaces."

We suggest adding a new item to this list as follows:

"(x) Design standards for streets, sidewalks and crosswalks, transit interface facilities, on-street parking, bicycle access and related elements of public infrastructure required

for access and circulation within the TOD district to ensure 'complete streets' and good pedestrian environments."

We suggest modifying paragraph (h) by adding the underlined words:

"(h) Urban landscaping requirements that enhance the pedestrian experience, support station identity, and complement adjacent structures."

Finally, we suggest adding a new paragraph as follows:

"(x) Standards for sustainable practices in storm water management that reduce off-site flows and protect water quality."

### **Unresolved Issues**

The planning literature suggests that TOD is a fragile real estate product that faces major barriers to successful implementation. Supportive parking and land-use and policies, such as overlay zoning (i.e., an ordinance that stipulates the density and type of future development permitted in station areas) are all essential for TOD to occur properly. Supportive parking and land-use policies, which are all about place-making, are just as important as decisions on transportation engineering in shaping urban form.

We are not sure that the city's proposed neighborhood TOD planning process or the plans that they will produce will comply with FTA's *Guidelines and Standards for Assessing Transit-Supportive Land Use*. Furthermore, we are not sure whether the proposed planning process will adequately address the following issues, which were identified in *The New Transit Town: Best Practices in Transit-Oriented Development* (edited by Hank Dittmar and Gloria Ohland, 2004).

*Land Assembly.* A TOD serves as both a transit station node and a place in its own right. Some TODs may require more than a single parcel. In such locations, property ownership may be fragmented and assembly of multiple parcels may be difficult. High land costs and fragmented land ownership patterns may be an impediment to infill development. This raises the following question: To what extent should the City & County of Honolulu help assemble parcels of land at station locations?

*Financing.* How will increased property values be captured and spent at identified TOD locations? In what locations and under what circumstances should the city finance infrastructure and public improvements to demonstrate its commitment to TOD? Should the city make funding for key infrastructure contingent on transit-supportive design and/or provision of affordable housing by the private sector?

*Building Intensity and Scale.* Some cities have overlay districts for TOD that set minimum floor area ratios (FARs), minimum lot area per unit and minimum heights and/or massing. Other cities have set minimum or average densities for TOD projects to encourage transit ridership. Still others have density bonuses to promote affordable housing. Honolulu's TOD bill leaves these issues up to those who participate in the neighborhood planning process. We believe that neighborhood plans will vary greatly on how much density and mixed-use will be proposed.

*Land Use Mix.* What is an appropriate land use mix in Honolulu for different types of TODs? Should it include both a horizontal and vertical land use mix (i.e., residential over either retail or office use)? Should land uses that encourage pedestrian activity be permitted as "of right" with no or minimal discretionary review? Should mixed-use zoning districts provide incentives for affordable housing by allowing projects by-right if they have a certain percentage of floor area devoted to residential uses? A "by-right" approach may reduce the planning approval time for mixed-use projects.

*Transit Integration.* How will land uses in Honolulu interface with the city's proposed elevated transit stations. Customized TOD projects in other cities often integrate transit facilities and land uses on site. They involve detailed and lengthy planning that is shared among many private entities and public agencies. Smaller and midsize TOD projects may have walking access to transit stations, but do not incorporate transit stations. In either case, Honolulu's zoning ordinance will need to address how tracks and stations integrate with surrounding land uses.

*Parking Policy.* Good TODs typically ban surface parking lots between buildings to encourage more pedestrian activity and greater transit use. Thus, small businesses that depend on parking for their clients will likely oppose such restrictions in the neighborhood planning process. The city ought to take the lead in determining what parking policies and standards will better support transit ridership. For example, the city of Vancouver, British Columbia, reduced its parking standard from 1.35 stalls to 1.04 stalls per dwelling unit, because a parking study showed that TODs in Vancouver generally required only 0.6 to 0.7 stalls per dwelling unit. This reduction enabled the developer of a 27.3-acre TOD (i.e., Collingwood Village) at SkyTrain's Joyce Station to save hundreds of thousands of dollars. The developer (Concert Properties) of this TOD spent the savings on station area streetscape and security improvements for the community.

### **Final Comments**

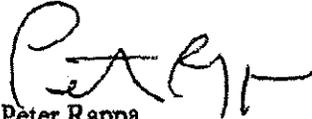
Dittmar and Ohland (2004) found that many first-generation TODs were in fact transit-adjacent developments (TADs). These TADs often fell short of expectations, because of significant barriers to TOD implementation. But these barriers can be surmounted by enlightened public policies on infrastructure provision, land use planning, parking policy, and zoning. We support the concept of a TOD ordinance, because it represents an attempt to comply with the federal requirement to adopt land use policies that support the city's rail transit project. We hope that our comments will assist the City in meeting FTA expectations.

November 29, 2007

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Adopting supportive land use policies will be very difficult, because there are considerable opportunities for conflict over this issue. Transit agencies, land use planners, and policy makers often have very different goals, priorities, and constraints. Transit agencies favor stations in locations that will maximize ridership and fare-box revenues, and minimize construction cost. In contrast, city planners want to build communities around the stations, while city council members often resist the land use zoning changes that are necessary for TOD, especially if most of their constituents oppose higher densities and mixed land use. In addition, zoning changes that favor TOD can lead to displacement of existing residents and businesses around stations. Fortunately, the TOD bill assumes "that community-based input is a necessary element of TOD programs..." (p. 1). It calls for an inclusive planning process that is "open to residents, businesses, landowners, community organizations and others" (p. 3). Dittmar and Ohland (2004) recommend that collaborative planning efforts should also include governmental agencies, land use planners, developers, and lenders.

Sincerely,



Peter Rappa  
Environmental Review Coordinator

cc: Peter Flachsbart  
Olwen Huxley  
Jim Charlier  
James Moncur, Water Resources Research Center

## References

Arrington, G.B. and Terry Parker. 2001. *Statewide Transit-Oriented Development Study: Factors for Success in California's Transit-Oriented Development*. California Department of Transportation, California Department of Transportation, Sacramento, California.

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Kunstler, James Howard. 2005. *The Long Emergency: Surviving the End of Oil, Climate Change, and Other Converging Catastrophes of the Twenty-First Century*. Grove Press, New York.

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Office of Planning. 2004. *Guidelines and Standards for Assessing Transit-Supportive Land Use*. Federal Transit Administration, Washington, D.C.

Parker, Terry, Mike McKeever, G. B. Arrington, Janet Smith-Heimer, et al. 2002. *Statewide Transit-Oriented Development Study: Factors for Success in California, Final Report*, California Department of Transportation, Business, Transportation and Housing Agency, Sacramento, California.

Table 1. Transit Agency Definitions of TOD.

<u>Transit Agency</u>	<u>Definitions</u>
ATLANTA: Metropolitan Atlanta Rapid Transit Authority (MARTA)	Broad concept that includes any development that benefits from its proximity to a transit facility and that generates significant transit ridership.
ASPEN: Roaring Fork Transportation Authority Colorado	Land development pattern that provides a high level of mobility and accessibility by supporting travel by walking, bicycling, and public transit.
BALTIMORE: Maryland Transit Administration	A relatively high-density place with a mixture of residential, employment, shopping, and civic uses located within an easy walk of a bus or a rail transit center. The development design gives preference to the pedestrian and bicyclist.
CHARLOTTE: Charlotte Area Transit System	High-quality urban environments that are carefully planned and designated to attract and retain ridership. Typically, TODs provide for a pedestrian-friendly environment.
NEW JERSEY: New Jersey Transit Corporation (NJ TRANSIT)	An environment around a transit stop or station that supports pedestrian and transit use, created by providing a mix of land uses in a safe, clean, vibrant, and active place.
CHICAGO: Regional Transportation Authority of Northeast Illinois (RTA)	Development influenced by and oriented to transit service that takes advantage of the market created by transit patrons.
ORLANDO: Central Florida Regional Transportation Authority (LYNX)	A sustainable, economically viable, livable community with a balanced transportation system where walking, biking, and transit are as valued as the automobile.
SALT LAKE CITY: Utah Transit Authority (UTA)	Projects that enhance transit use, improve the quality of service provided to Authority riders, or generate revenue for the purpose of supporting public transit.
SAN FRANCISCO: Bay Area Rapid Transit Authority (BART)	Moderate- to higher-density development, located within an easy walk of a major transit stop, generally with a mix of residential, employment, and shopping opportunities designed for pedestrians without excluding automobiles. TOD can be new construction or redevelopment of one or more buildings whose design and orientation facilitate transit use.
WASHINGTON, D.C.: Washington Metropolitan Area Transit Authority (WMATA)	Projects near transit stops which incorporate the following smart-growth principles: reduce automobile dependence; encourage high shares of pedestrian and bicycle access trips in transit; help to foster safe station environments; enhance physical connections to transit stations from surrounding areas; and provide a vibrant mix of land-use activities.

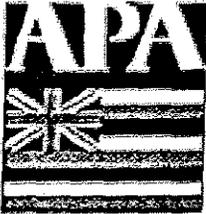
Source: Cervero et al., 2004.

**Table 2. The Benefits of TOD.**

A recent study, *Factors for Success in California's Transit-Oriented Development*, commissioned by the California Department of Transportation, identified the following 10 potential benefits of TOD. The study cites research showing that TOD can:

1. **Provide mobility choices.** By creating "activity nodes" linked by transit, TOD provides important mobility options, very much needed in congested metropolitan areas. This also allows young people, the elderly, people who prefer not to drive, and those who don't own cars the ability to get around.
2. **Increase public safety.** By creating active places that are busy through the day and evening and providing "eyes on the street," TOD helps increase safety for pedestrians, transit users, and many others.
3. **Increase transit ridership.** TOD improves the efficiency and effectiveness of transit service investments by increasing the use of transit near stations by 20 to 40 percent, and up to five percent overall at the regional level.
4. **Reduce rates of vehicle miles traveled (VMT).** Vehicle travel in California has increased faster than the state's population for years. TOD can lower annual household rates of driving 20-40 percent for those living, working, and/or shopping within transit stations areas.
5. **Increase households' disposable income.** Housing and transportation are the first and second largest household expenses, respectively. TOD can free-up disposable income by reducing the need for more than one car and reducing driving costs, saving \$3000-\$4000 per year.
6. **Reduce air pollution and energy consumption rates.** By providing safe and easy pedestrian access to transit, TOD allows households to lower rates of air pollution and energy consumption. Also, TODs can help households reduce rates of greenhouse gas emissions by 2.5 to 3.7 tons per year.
7. **Conserve resource lands and open space.** Because TOD consumes less land than low-density, auto-oriented growth, it reduces the need to convert farmland and open spaces to development.
8. **Play a role in economic development.** TOD is increasingly used as a tool to revitalize aging downtowns and declining urban neighborhoods, and to enhance tax revenues for local jurisdictions.
9. **Contribute to more affordable housing.** TOD can aid to the supply of affordable housing. It was recently estimated that housing costs for land and structures can be significantly reduced through more compact growth patterns.
10. **Decrease local infrastructure costs.** TOD can reduce costs for water, sewage, and roads to local governments and property owners by up to 25 percent.

Source: Arrington and Parker (2001).



hawai'i chapter

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american planning

association

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96809

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December 4, 2007

Chair Diane Peters-Nguyen and Members of the  
City and County of Honolulu Planning Commission  
c/o Department of Planning and Permitting  
750 South King Street, 7<sup>th</sup> Floor  
Honolulu, HI 96813

### Testimony on Transit-Oriented Development Draft Bill

The Hawai'i Chapter of the American Planning Association supports the draft bill initiated by the Department of Planning and Permitting related to transit-oriented development. We would like to suggest the following modifications which we believe would strengthen this bill.

1. **Provide a definition of "transit-oriented development" in the bill;** for example:

*Transit-oriented development (TOD) is development with a functional relationship to transit allowing it to achieve synergies that are more efficient and cost effective by contributing to increased ridership. TOD implies a collaboration between interests that converge at transit stations, including the transit agency, the local government, private developers, residents, workers and riders.*

*TOD may be any commercial, retail, office, residential and other physical development around transit stations which takes advantage of the foot traffic of transit riders, and which is oriented and designed to integrate with the transit operations in a way that increases ridership. This creates a symbiotic relationship. TOD development is generally compact and dense; it includes a mix of uses and it is designed with high-quality, pedestrian-oriented urban design streetscapes.*

2. **Expand on the benefits of TOD in the purpose and intent section of the bill;** for example:

- *Provide mobility choices.*
- *Increase public safety by creating active places through the day.*
- *Increase transit ridership.*
- *Reduce rates of vehicle miles traveled.*
- *Increase households' disposable income by reducing transportation costs.*
- *Reduce air pollution and energy consumption rates.*
- *Conserve resource lands and open space by encouraging compact development.*
- *Decrease local infrastructure costs through more compact development.*
- *Stimulate economic development.*
- *Contribute to more affordable housing.*
- *Promote public health by encourage walking.*

3. **Clarify that the TOD zoning adopted as part of the neighborhood plan will override existing zoning in areas that are already special districts, such as in Waikiki, and whether it will also override subdivision regulations.** We believe the latter is particularly important with respect to land assembly and the design of streets.

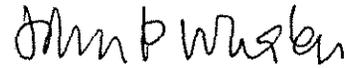
*founded in 1962, the  
hawai'i chapter has over  
300 members, including  
planning officials, public  
and private sector planners,  
and community advocates,  
on the major islands  
across the state*

*e mālama pono i ka 'āina;  
nānā mai ke ola  
take good care of the land;  
it grants you life*

*Honolulu Planning Commission  
Testimony on Transit-Oriented Development Draft Bill  
December 4, 2007*

Thank you for the opportunity to comment on this bill. APA Hawaii Chapter remains committed to working with the City towards the successful rebuilding of Honolulu through transit.

Sincerely,



Ralph Portmore, AICP  
*APA Hawaii Chapter President*

Cheryl D. Soon, FAICP

John P. Whalen, FAICP

*Co-Chairs, APA Transit Committee*



CITY & COUNTY OF HONOLULU

*Kelly*

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RECEIVED

November 29, 2007

Henry Eng, FAICP, Director  
Department of Planning and Permitting  
650 South King Street, 7<sup>th</sup> Floor  
Honolulu, HI 96813

Dear Director Eng,

Thank you for the opportunity to comment on the Transit Oriented Development (TOD) Draft Planning and Zoning Bill. AARP Hawaii applauds the city for making TOD a priority and setting forth a planning framework for zoning regulations appropriate to individual transit stations.

The TOD Planning and Zoning Bill is of interest to AARP because of its potential to encourage community design that incorporates key elements of our Livable Communities Agenda. According to U.S. Census projections, in the next 23 years, Hawaii will see its 65+ population increase by 86% while the under 50 population will increase by only 8.4%. It is critical to the health and financial well being of both individuals and our state as a whole, that we keep this demographic shift in mind and plan communities that will offer people the opportunity to live independently, at home for as long as possible. This will require a variety of transportation and housing options, including:

- Increased proximity of housing to retail and services such as pharmacies, doctor's offices, and grocery stores.
- Promotion of affordable housing – Support of a range of housing and land use policies, that encourage every price point to live around transit. Promote funding for programs that lead to an adequate supply of affordable housing options integrated into the community for people of all ages, keeping in mind that an older population is likely to be living on fixed incomes
- Accommodations for those with disabilities. Most people develop age related disabilities as they get older, i.e., loss of eye sight and hearing or reliance on an assistive device for walking.
- Safe and comfortable walking environments for those who can no longer drive or choose not to drive. Design provisions should ensure safe, comfortable, and convenient travel by foot, bicycle, transit, and auto, regardless of age and ability. In particular, the design of the street network should encourage use of rail transit, buses, bicycling, walking and other non-automobile forms of transportation.

We believe that Transit Oriented Development can be an effective land use pattern for delivering these benefits. AARP offers several comments and recommendations on this bill.

1. We are viewing this as a broad policy document. However, we do have some concern that the softness of some of the language may not be strong enough to ensure implementation. We hope that specific policy will be set that will use language that will require action. For example, in section 21-9-100, 4<sup>th</sup> line – we would like to see the word “can” be changed to “must” and read, “TOD must provide more walkable communities,” etc. And, in Section 9.100-2 (b) – the sentence reads “Density and building height limits that **may** be tied to the provision of community amenities.” We believe that it should read, “Density and building height limits that are tied to the provision of community amenities.”
2. Under section 21-9-100 (b), please specify how the development of neighborhood TOD plans will be inclusive. The process that has been implemented so far in Waipahu has been right on track and we’d like to see the public process continued at the same level for each station area. We hope that there is adequate funding and staffing resources set aside for this. At a minimum, the ordinance should include language that there is at least one public meeting after notice to the community in each of the special districts to educate the community about the project and receive public input. At the present time, the ordinance only calls for a public hearing after the city planning commission receives the plan from the neighborhood board. We believe that public input should occur at an earlier stage as well.

When it is time to craft the actual TOD district language for the zoning regulations there should be ample opportunities for multi-stakeholder groups to be involved. Please consider:

- a. Forming a review committee made up of stakeholder groups representing aging, children, business, cycling, disabilities, public health, and the community at large. AARP Hawaii would be pleased to serve on this committee.
  - b. Maintaining a list-serve of interested groups and individuals and providing notice of all community meetings at least 2 weeks prior to any community meetings.
3. Under section 9.100-2 – TOD special district minimum requirements, we recommend:
    - Revising letter (d) to include language changes to incorporate the concept of Complete Streets into the ordinance. For example: “Design provisions that ensure safe, comfortable, and convenient travel by foot, bicycle, transit and auto, regardless of age and ability. In particular, the design of the street network should encourage use of rail transit, buses, bicycling, walking, and other non-automobile forms of transit.”
    - Adding some reservations for affordable housing that ensures that a percentage of the existing residents can continue to live in the neighborhood and pay the same percentage of their gross income that they are paying now and that there will be a mix of land uses and affordability. We encourage the City/County to investigate the use of density bonuses, tax breaks, and other incentives to aid the private sector in providing affordable units in high-priced TOD markets. Please note that density does not necessarily have to mean building heights. For example, in Seattle (WA) and Hyattsville (MD), many box stores in these transit sites are putting affordable and market rate units in as part of their stores. We also encourage the City/County to work with developers in the design and implementation of a phasing plan that allows current residents the opportunity to remain in their community during construction.

- Adding language that one or more districts will reserve some affordable housing units for older adults.
- Defining a minimum area around the station that will be the TOD zone. This will help keep the public process on track in the station planning phase.

In addition to the suggested refinement of the TOD bill, we request that the neighborhood planning process address the following in detail:

- Design elements to ensure a walkable street environment (building setbacks, ground floor use, sidewalk widths, street widths and design speeds, pedestrian crossings, sidewalk materials that allow easy and comfortable navigation for those in wheelchairs or with compromised balance and eyesight, street furniture and landscaping, etc.)
- The mix of land use with square footage reserved for community services and recreation (libraries, daycare facilities, senior centers, health and human services and other government offices, grocery stores and pharmacies, schools and universities, open space, etc.
- Infrastructure to support the needs of those with disabilities, such as public restroom facilities, benches and other resting places.
- Infrastructure to support bicycling such as the location and design of bike racks and lockers, bike lanes or other travel ways, requirements for shower facilities in office buildings, etc.

We assume that work has already been done to find out as much as possible about the residents around each station area, including, age, income, and current methods of transportation. If it would add to the community's body of knowledge, AARP would like to offer additional detailed demographic information on the 50+ population, organized by zip code, to ensure that the needs of our aging community are being taken into account.

Additionally, we recognize that the affordable housing issue is a big one. AARP's national Public Policy Institute is at our disposal, and can help guide us with examples from other states and countries. Attached for your use as appropriate is an AARP document entitled, "Land Use and Zoning Techniques and Their Benefits and Policy Implications."

I am currently serving as the AARP Hawaii issue lead for livable communities and would be pleased to work with you. Please do not hesitate to contact me at 545-6003 or [jboland@aarp.org](mailto:jboland@aarp.org) if you would like to access any of the aforementioned data.

Again, thank you for the opportunity to provide comment on this important work. AARP Hawaii currently has 155,000 members in the state and we are committed to serving their needs and interests as well as those of their families. We look forward to reviewing draft design guidelines in the future and participating throughout the public process.

Sincerely,



Jackie Boland  
Associate State Director  
AARP Hawaii

CC: Barbara Kim Stanton, State Director, AARP Hawaii  
Jana Lynott, Strategic Policy Advisor on Transportation & Livable Communities AARP,  
Public Policy Institute  
AARP Hawaii Livable Communities Volunteer Issue Team  
Julie Shiohita, Convener, One Voice for Livable Islands

Enclosures: Land Use and Zoning Techniques: Their Benefits and Policy Implications  
The Affordability Index: A New Tool for Measuring the True Affordability of a  
Housing Choice.



The power to make it better.®

## LAND USE AND ZONING TECHNIQUES: THEIR BENEFITS AND POLICY IMPLICATIONS

### UPZONING (HIGHER DENSITY)

Upzoning is one of the most basic and potentially effective techniques for promoting housing affordability. It involves the selective rezoning of residential land to allow greater density (measured by the number of housing units that can be placed on a parcel of land). Higher density can include both multi-family and single-family housing. Cities that allow higher densities may also enact special design requirements to ensure that new higher density developments are compatible with existing housing in the community.

Simple arithmetic reveals an extreme divergence. A single-family home on a half-acre lot uses 12.5 times as much land per household as a garden apartment of 25 units per acre. At the extremes, a steel and concrete high-rise of 80 units per acre holds 400 times as many households per acre as a five-acre lot development of single-family homes.

*Blueprint for Affordable Housing*  
King County Housing Partnership

#### Benefits:

Increasing allowable density generally has the effect of reducing land and site development costs for developers, letting them spread these costs over a larger number of units, and therefore, reducing purchase prices for homes and rents for apartments. Site development costs include the labor, material and equipment expenses for the construction of roads, sidewalks, water and sewer lines, drainage, landscaping, and other on-site work.

Higher density urban development may help to preserve farm land, open space and environmentally sensitive areas by reducing the overall amount of land needed for residential development.

Density increases near employment centers and transit stops can help reduce traffic congestion by providing more opportunities for residents to live near their jobs

Higher densities can result in more efficient use of existing infrastructure capacity (assuming it is adequate to serve growth).

#### Key Policy Issues:

Higher density development requires greater attention to design (architectural style, landscaping, lot coverage, open space, parking, etc.) to enhance aesthetic appeal and to blend in with surrounding developments.

High density developments require convenient access to recreation and transit.

Opposition in community may be based on concern over out-of-scale buildings, increased traffic congestion, longer lines, impact on property values, and the perception that people who live in higher density housing are somehow "different."

Debate over desirability of greater density is often couched in terms of "high" verses "low." Communities may want to consider other options, including "moderate" densities or a mix of densities.

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## **INCLUSIONARY ZONING**

Inclusionary zoning is a technique applied to new housing developments in which a certain portion of the units being constructed are set aside to be affordable to low- and moderate-income home buyers. [*Affordable Housing - Local Government Regulatory and Administrative Techniques*, p.16] This technique may be applied to both rental and owned units, and single- or multi-family housing projects.

Inclusionary zoning ordinances can be either mandatory, requiring developers to build a specified number of affordable units, or voluntary, based on development incentives, such as density bonuses which allow a developer to build more units (at a higher density) on the same site in exchange for the inclusion of a number of affordable units.

Inclusionary zoning ordinances generally contain provisions defining income eligibility requirements, criteria used for determining the pricing of affordable units, restrictions on the resale of affordable units (to ensure that new owners do not turn around and resell the units at market rates), and provisions for the payment of fees in-lieu of construction. [*Blueprint for Bay Area Housing*, p. 49]

### **Benefits:**

Inclusionary zoning programs do not generally require the expenditure of local tax dollars to fund the construction of affordable housing units.

Ordinances based on developer incentives, such as density bonus programs, offer a positive alternative to mandatory programs that may be resisted by local developers. Voluntary programs allow developers to determine for themselves whether participation will be cost effective.

Inclusionary programs that do not provide for density bonuses can preserve zoning restrictions on higher density development and may be more acceptable in communities opposed to general upzoning as a solution to affordable housing shortages.

Inclusionary programs avoid the problems of overconcentration, isolation, and stigmatization of affordable housing units, by integrating them into housing developments located throughout the community.

Inclusionary zoning can be flexible, since the provision for affordable housing can either be regulated or encouraged by developer incentives.

**Key Policy Issues:**

Mandatory requirements should be relatively modest (10 -15 percent of total units) if there are no compensating developer incentives. [*Blueprint for Bay Area Housing*, p. 50]

Inclusionary programs will require some ongoing administrative oversight to provide for the collection and management of fees paid by developers who opt to pay into a housing fund and to ensure that units that are constructed will be maintained as affordable housing.

The legal authority for inclusionary programs based on mandatory requirements remains unclear in Washington. Cities contemplating this type of program should consult with their city attorney.

**Inclusionary Zoning (Bellevue, Washington)**

**20.20.128 Affordable Housing**

**A. Purpose:** The purpose of this Section is to implement through regulations the responsibility of the City under the State Environmental Policy Act, Chapter 43.21C RCW, and the Growth Management Act, Chapter 17, Laws of 1990, 1st ex. sess., to consider the housing needs of all economic segments of the community, and to assure that the impacts of new development will be mitigated to the extent feasible to assure an adequate affordable housing supply in the City.

**B. General:** This Section applies to: all new residential development (Paragraph 1); all new subdivisions (Paragraph 2); and all rezone applications (Paragraph 3). These requirements are adopted pursuant to the authority of the State Environmental Policy Act and the review of all projects under these requirements is SEPA based.

**1. Multifamily Development:** At least 10% of the units in all new multifamily development proposals of ten units or greater must be affordable units. In addition, one bonus market rate unit is permitted for each affordable unit provided, up to 15% above the maximum density permitted in the underlying zoning district.

**2. Subdivision Development:** At least 10% of the units in all new subdivision proposals of ten lots or greater must be affordable units. In addition, one bonus market rate unit is

permitted for each affordable unit provided, up to 15% above the maximum density permitted in the underlying zoning district.

3. **Rezones:** All rezone proposals for an increase in residential zoning density must provide that at least 10% of the units buildable under the original maximum density be affordable units and that at least 20% of the units buildable as a result of the increase in density from the original maximum density to the total number of approved units must be affordable units. In addition, one bonus market rate unit is permitted for each of the affordable units provided to meet the minimum 10% requirement of the original maximum density, up to 15% above the original maximum density.

Source: Bellevue Municipal Code

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## DENSITY BONUSES

Many communities have developed programs that offer developers "density bonuses" in exchange for the inclusion of affordable units within a proposed residential project. A density bonus allows a developer to build more units within a project than would otherwise be permitted under normal density limits. Both zoning and subdivision regulations can be modified to allow density bonuses.

### **Benefits:**

See "Inclusionary Zoning," (above)

By increasing the overall value of a project, density bonuses make the provision of affordable housing units more economical.

Density bonus programs allow for the provision of affordable housing that in many cases would not be economically feasible for either the developer or the municipality.

### **Key Policy Issues:**

Density bonuses alone may not be sufficient, depending on market conditions, as an incentive to developers. Cities may want to consider additional incentives such as reduced setbacks, street frontages, and other cost reducing inducements.

City officials need to consider what level of additional density will be allowed in exchange for a specified number of affordable units. Density bonuses are usually expressed as a percentage of the density allowed under normal zoning regulations.

Density bonus programs must be designed on the basis of a thorough understanding of the real estate market to determine feasibility and to develop appropriate regulations. If current zoning

allows enough density to satisfy current market demand, developers may have no interest in using a density bonus.

Attention should be given to the location and design of affordable housing units within proposed projects to ensure project quality.

If most new houses in the community are built individually or two and three at a time, density bonuses may not be appropriate. This approach generally works best in larger scale developments. [*How Regulatory Improvements Can Help*, p. 19]

### **Density Bonuses (Vancouver, Washington)**

#### **20.13.310 Density provisions.**

Duplexes and multifamily developments may be allowed in the R-3 district, provided no residential development shall be constructed at a density higher than the standard density of 1 d.u./2,500 sq. ft., in the R-3 district, except as provided in Sections 20.13.311 and 20.13.312. (Ord. M-2254 (part), 1981)

#### **20.13.311 Density bonus "A."**

Residential development may be permitted up to a density of 1 d.u./2,000 sq. ft., subject to staff review, if all of the following features are provided:

- A. Compatible design;
- B. Energy-conscious construction;
- C. Private open space;
- D. One covered parking space per unit;
- E. Sidewalk and curb dedicated and constructed to city standards (if not already in place), unless in a planned development;
- F. Either solar heating, large unit size, tree preservation, or underground utilities. (Ord. M-2254 (part), 1981)

#### **20.13.312 Density bonus "B."**

Residential development may be permitted up to a density of 1 d.u./1,250 sq. ft., subject to staff review, if the following features are provided:

- A. Compatible design;
- B. A minimum twenty-thousand-square-foot site;

C. One covered parking space per unit;

D. Private open space;

E. Energy-conscious construction;

F. Sound transmission reduction;

G. Half-street, curb and sidewalk constructed to city standards (right-of-way to be dedicated). As an alternate, the developer may place funds sufficient to complete such part of the project in an escrow account by an instrument approved as to form by the city attorney. If the city does not participate in full street improvements within five years of project approval, all such money shall revert to developer upon petition and approval of the city council;

H. Either solar heating, large unit size, tree preservation, underground utilities, or one garage per unit (as replacement for covered parking). (Ord. M-2254 (part), 1981)

Source: Vancouver Municipal Code

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## PERFORMANCE/IMPACT ZONING

Performance/impact zoning is a type of flexible zoning which determines land use locations and characteristics through the application of a system of performance criteria, which establish basic development standards and limitations, and specify the conditions under which developments will be allowed.

Unlike traditional, "euclidean" zoning, which separates land uses into discreet districts based on their presumed compatibility or incompatibility with predetermined lists of permitted and prohibited uses, performance-based zoning systems evaluate proposed land uses on a case-by-case basis according to the merits of each proposal. Projects are evaluated on the basis of their particular "size, shape, location, natural features, and site development concept, rather than according to a predetermined zoning district classification." [*Streamlining Local Regulations*, pp. 15-16]

Performance zoning is based in part on the model of environmental impact analysis which focuses on identification of a project's physical impacts. Under this model, identified negative impacts must be mitigated before a project can be approved. Under a performance-based zoning system, a proposed land use must be able to show that it can meet the specified performance standards without negatively impacting the community in order to obtain a development permit.

Many communities implement performance zoning through a point system that ties development approval to the ability of a proposed project to qualify for a sufficient number of points. Points are awarded for meeting basic performance criteria.

A typical list of performance criteria may include such items as:

- compliance with density standards
- traffic generation - capacity of existing streets
- neighborhood compatibility
- impact on and capacity of existing utilities
- proximity to existing infrastructure (water and sewer lines, schools, police and fire stations, transportation facilities)
- parking
- noise levels
- proportion of open space
- protection of natural features

In theory, under this system, any use could locate next to any other use provided it could satisfy the performance standards in place. For example, a commercial use may be allowed to locate next to a residential area if the proposed use can meet certain conditions, such as landscape buffering and arterial street access rather than access via neighborhood streets. While performance based zoning systems allow considerable flexibility in determining the potential uses of a particular site, proposals must still meet the performance standards which govern actual development.

#### **Benefits:**

Performance zoning permits all types of housing units, and provides more flexibility for developers to respond to a broader spectrum of the housing market. This added flexibility encourages developers to build a broader range of housing types including affordable units. [*Affordable Housing - Local Government Regulatory and Administrative Techniques*, pp. 14-15]

By substituting performance criteria for designation of zoning districts as a means for determining land uses, performance systems have the effect of increasing the supply of developable land. The increased land supply can translate into lower land prices and lower cost development, which can contribute to the development of affordable housing. [*Flexible Zoning - How It Works*, p. 79]

Performance-based standards typically allow greater flexibility in site design and project density, which encourages use of cost-saving techniques such as building clustering, mixed-use, and small-lot developments.

#### **Key Policy Issues:**

This technique involves the establishment of detailed performance criteria to be used for impact measurement and mitigation.

A key challenge is to develop performance criteria that will mitigate the negative impacts of developments without unnecessarily restricting developers from applying creative design and use solutions. [*Flexible Zoning - How it Works*, p. 94]

Few communities have developed performance-based systems which have replaced all traditional zoning districts. Most have incorporated performance zoning within a traditional framework, but with fewer zoning districts and more flexible use and density regulations.

Performance zoning allows the marketplace to decide how to meet the specified standards that the community sets. It is a conscious legislative attempt to protect the interest of all parties involved while providing the basis for compromise and flexible criteria for development.

*Streamlining Local Regulations*  
HUD/Joint Venture for Affordable Housing

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## **MOBILE/MANUFACTURED HOUSING**

With production costs substantially lower than conventional built housing, mobile/manufactured homes represent a significant source of affordable housing, particularly for low- and moderate-income households.

For purposes of regulation, most cities make a distinction in their zoning codes between conventional site-built housing and mobile/manufactured housing. The term "mobile/manufactured home" is defined as:

"A structure, originally designed and constructed to be transportable in one or more sections, that is built on a permanent chassis, and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities that include plumbing, heating and electrical systems contained therein. The structure must comply with the National Mobile Home Construction and Safety Standards Act of 1974 as administered by the U.S. Department of Housing and Urban Development and as adopted in RCW 43.22, if applicable." [*A Model Ordinance for Siting Mobile/Manufactured Home Parks*, p. 3]

Conventional site-built housing is defined as:

"Residential units that are assembled at their site of permanent location. Construction materials and equipment are brought to the site in unassembled form. Construction is regulated by the state building code." [*A Model Ordinance for Siting Mobile/Manufactured Home Parks*, p. 4]

Mobile/manufactured homes are also distinguished from "factory-built" housing such as modular, panelized, prefabricated, and kit homes. The major difference between mobile/manufactured and factory-built homes is that they are built to different building codes. Factory-built, like conventional site-built homes, are constructed to the requirements of the Uniform Building Code (UBC), while mobile/manufactured homes, built after June 1976, are constructed according to the standards adopted by the U.S. Department of Housing and Urban Development (HUD code). Factory-built homes that are built to UBC standards generally enjoy a

greater level of acceptance in communities and are usually treated like conventional site-built homes in local zoning codes.

Cities in Washington have taken a number of different approaches to regulating the location of mobile/manufactured housing within their borders. Many cities allow mobile/manufactured homes to be placed on single-family residential lots in the same way as conventional site-built homes. Other cities have established certain zones in which mobile/manufactured homes are a permitted use, but do not permit them in all zones. Still other cities permit mobile/manufactured homes only in mobile home parks or subdivisions, but not in other residential areas.

Lack of public acceptance has been one of the biggest stumbling blocks for a more generalized siting of mobile/manufactured homes. Public perceptions of mobile/manufactured homes are, however, improving for reasons of improved appearance, better quality construction, and affordability.

As prices on conventionally built houses have rapidly increased, growing numbers of households in Washington have turned to mobile/manufactured homes as a more affordable alternative. Between 1980 and 1989, the number of mobile/manufactured homes in the state increased by 57 percent and accounted for 20 percent of all new housing (including single- and multi-family) added to the state's housing stock. As a result, mobile/manufactured homes now comprise over 9 percent of the total housing units in the state. [*Closing the Gap*, p. 4]

As affordable housing becomes harder to find, manufactured housing remains a major option for low and moderate income households seeking ownership or rental of single-family housing. As manufactured housing becomes less distinguishable from stick-built housing, and public and governmental perceptions begin to match this reality, manufactured housing should be an option in more and more locations.

*The Washington State 1992 Comprehensive Housing Affordability Strategy - Final Draft for Citizen Review*

Washington State Department of Community Development

The problem of siting mobile/manufactured homes in Washington has recently become more pressing due to an increase in the number of mobile/manufactured home park closures. Park closures, particularly in urban areas where the number of parks has been dwindling, have caused the displacement of many mobile/manufactured homeowners, leaving them with few, if any, alternative sites for their homes. In many cases, the homes that are displaced are older, single-wide models, that are difficult to relocate because of restrictions placed by local governments and park owners. In 1991, the Washington State Legislature passed a new law establishing the Mobile Home Relocation Assistance Program to provide financial assistance to low-income mobile home park tenants who are forced to relocate due to a park closure. In addition to the financial assistance measure, this law also exempts mobile homes that are relocated due to a park closure from complying with the requirements of city or county fire, safety, or construction codes. [See RCW 59.21.105]

## **Benefits:**

Mobile/manufactured homes cost substantially less to build than conventional site-built homes. According to the Washington Manufactured Housing Association, the average price of a new multi-section mobile/manufactured home is approximately \$40,000.

Today's mobile/manufactured homes built to HUD code standards are more attractive, safe, and durable than earlier models, and can provide not only affordable, but also high quality housing, to low- and moderate-income buyers.

Growing numbers of low- and moderate-income buyers, who have been priced out of the conventional home market, are turning to mobile/manufactured homes as their only affordable alternative for homeownership. Increasing the availability of land zoned to accommodate these new homes will enhance the location options for mobile/manufactured home buyers and contribute further to their affordability.

## **Key Policy Issues:**

Cities that are planning under the new Growth Management Act are required to prepare comprehensive plans that include a housing element. The housing element must specifically identify sufficient land for housing, including manufactured housing, as well as other types of low- and moderate-income housing.

Due to the variety in mobile/manufactured home styles, flexible community ordinances may be more useful for siting mobile/manufactured homes than restrictive ordinances which may not accommodate the full range of homes that are commercially available. [*A Model Ordinance for Siting Mobile/Manufactured Home Parks*, p. 8]

Local governments can establish a design review process utilizing appearance standards to ensure that mobile/manufactured homes are compatible with the neighborhoods in which they are sited.

Allowing siting of mobile/manufactured housing on individual lots offers financial advantages. Because mobile/manufactured housing is taxable as real rather than personal property in Washington State, allowing permanently sited, mobile/manufactured homes in residential zones provides a source of tax revenue. This is also advantageous to homeowners since permanently sited mobile/manufactured homes that are compatible with their neighborhoods are likely to hold their value and be eligible for long-term loans.

Provision in zoning codes for enough mobile/manufactured park sites to provide competition among park owners will help ensure attractive, low-cost living environments for mobile/

manufactured home owners. [*How Local Regulatory Improvements Can Help*, p. 8]

Community controls can ensure that allowable lot sizes are small enough to make the development of mobile/manufactured home parks cost-effective for developers and affordable

for home owners. Space saving siting techniques such as zero lot lines and clustering are also useful in mobile/manufactured home developments.

Infill development is an option to consider in siting mobile/ manufactured housing on individual lots. This is particularly true if the lots are small or irregularly shaped, including surplus rights-of-way.

Communities may want to consider offering density bonuses as an incentive to mobile home park developers who agree to accept older, displaced mobile homes.

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## ACCESSORY DWELLING UNITS

Allowing the development of accessory units is a technique for providing affordable housing which uses surplus space in existing single-family homes. An accessory dwelling unit is an additional living unit, including separate kitchen, sleeping, and bathroom facilities, attached or detached from the primary residential unit, on a single-family lot.

Attached units, contained within a single-family home, known variously as "mother-in-law apartments," "accessory apartments," or "second units," are the most commonly encountered type of accessory dwelling unit. Accessory apartments typically involve the renovation of a garage, basement family room, attached shed, or a similar space in a single-family home.

Less common are detached "accessory cottages" or "echo homes," which are structurally independent from the primary residence. These units, typically placed in the rear yard area, are usually constructed or installed for the purpose of providing housing for an elderly parent being cared for by their adult children living in the primary unit. Accessory cottages or echo homes are less frequently allowed in zoning codes and are generally more expensive to build than accessory apartments. [*Accessory Units: An Increasing Source of Affordable Housing*, p.5]

### Benefits:

Accessory apartments are a relatively easy to obtain source of affordable housing.

Allowing accessory units is a way to provide affordable rental housing without the necessity of local government expenditures or subsidies.

Rents for accessory apartments are generally lower than rents for comparably sized non-accessory apartments, both because the owner lives in one of the units and because they are cheaper to build. [*Accommodating Accessory Apartments*, p. 34]

Older residents who are living on fixed incomes can use the added income to offset the costs of rising property taxes and utility bills, thus allowing them to stay in their homes. Elderly home owners may also offer lower rents to tenants in exchange for help in performing routine maintenance chores.

Young, first-time home buyers can use the extra income to help pay their mortgage payment.

Accessory apartments use surplus space in large older homes, thus making the most efficient use of the existing housing stock.

Accessory apartments encourage the upkeep of existing housing stocks since owners have extra income that can be applied to maintenance expenditures.

Accessory apartments offer renters affordable housing located in more desirable single-family neighborhoods.

### **Key Policy Issues:**

Opposition to accessory units usually arises from neighborhood concerns about declining property values, exterior appearance of accessory units, and impacts on parking and traffic from increased density.

In response to community concerns, regulations are usually devised to deal with such issues as the size of units, exterior appearance, off-street parking, and concentration of units. The challenge to policy-makers is to address the concerns of opponents without making conversions too difficult or expensive for homeowners.

If 1 in every 10 of America's owner-occupied single-family homes built before 1975 were to devote space to an accessory unit, 3.8 million rental units would be generated, increasing the supply of rental housing by about 10 percent.

*"Not In My Backyard": Removing Barriers to Affordable Housing*  
Advisory Commission on Regulatory Barriers to Affordable Housing  
U.S. Department of Housing & Urban Development

Many communities that allow accessory units do so through a special permit or conditional use procedure which may require a public hearing. An alternative which may make conversions less burdensome for applicants would be to require a public hearing only when requested by a certain number of neighboring property owners.

Although opposition groups often express concern that single-family neighborhoods will be overrun by accessory apartment conversions, studies done in cities which have allowed accessory units show that the actual number of conversions has been relatively small. [*Accessory Apartments -Using Surplus Space in Single-Family Houses*, p. 4]

American Planning Association

## PLANNED UNIT DEVELOPMENT

Planned unit development (PUD) regulations give developers an increased level of flexibility in the overall design of residential projects in exchange for a higher quality of development. PUD ordinances often allow developers greater latitude in locating buildings on the development site, mixing various housing types and densities (single- and multi-family), and land uses (including some neighborhood commercial uses), and in some cases grant density increases over those normally allowed in the zoning ordinance.

PUD ordinances may be adopted as a part of a community's zoning or subdivision code, or may be adopted as a stand-alone ordinance. PUDs may be regulated as a separate zoning district, or as a conditional or special use permitted in selected districts. Some cities also designate PUDs as "floating zones" which do not apply to a particular location until an application is received and approved.

PUDs are generally characterized by:

- flexible zoning standards (lot size, setbacks, street frontage, etc.)
- focus on overall project design rather than traditional lot-by-lot zoning
- encouragement of innovative site design and housing types
- provision for on-site amenities (e.g., open space and recreational facilities)
- negotiation between developers and the community for improved design and amenities  
[*PUDs in Practice*, p. 13]

### Benefits:

The most effective features of PUDs for encouraging affordable housing are the economies that can be achieved through clustering of buildings and the related savings in site development costs such as for streets and utilities.

Design flexibility allows for the concentration of buildings on that portion of the site that is most suitable for building, resulting in a more environmentally sensitive development that preserves open space and other natural features.

PUD ordinances often allow developers the opportunity to build at higher densities, spreading development costs over a larger number of units.

PUD ordinances often allow a mixture of land uses in addition to residential. Commercial revenues from mixed-use areas can be used to help subsidize affordable housing in the development. [*Blueprint for Bay Area Housing*, p. 55]

PUDs which allow clustering of homes on small lots and a mixture of uses, including some commercial uses, reflect not only a desire for more affordable housing developments, but also a response to new lifestyle preferences for efficient low maintenance homes, with easy access to recreation and services.

PUDs give communities greater control over design during the permit review process allowing officials to negotiate for public benefits in return for concessions on density, mixed uses, and other development standards.

### **Key Policy Issues:**

PUDs require greater attention to a development's planning and design including detailed reviews by the city's planning staff, planning commission, and the city council.

Some cities may limit PUDs to residential developments (sometimes called Planned Residential Developments or PRDs) with no allowance for the inclusion of commercial uses.

Cities should be careful to avoid an overly cumbersome PUD process which may discourage developers from using this alternative. Flexibility is a major key to successful PUD projects.

Reducing minimum land area requirements for PUDs can encourage greater use of this development technique.

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## **CLUSTER SUBDIVISIONS**

This technique provides for the clustering of housing units within a residential development (usually single-family detached- or attached-housing) on lots smaller than those normally allowed under existing zoning, usually with the provision that the land that is saved be set aside permanently as open space.

Cluster subdivisions generally conform to a zoning districts "gross density" requirements (measured by the number of housing units per acre relative to the total area of the site), but may increase the site's "net density" (measured by the number of housing units per acre relative to the buildable area of the site), by reducing lot sizes and concentrating development on a smaller portion of the available site. [*Affordable Housing - Local Government Regulatory and Administrative Techniques*, p. 13]

Cluster subdivisions are similar to planned unit developments (PUDs) to the extent that they both involve clustering of homes on smaller lots; however, a cluster subdivision is a narrower concept, limited to residential uses (as opposed to mixed uses allowed in a PUD), usually requiring less stringent review procedures, and which may or may not result in higher overall densities. Cluster subdivisions are more closely related to traditional subdivision development since they generally comply with existing zoning standards governing overall density and land use restrictions. [*The Cluster Subdivision: A Cost-Effective Approach*, pp.1-2]

Cluster subdivision ordinances may include:

- A statement of purpose (to clarify intent and benefits sought)

- Provisions permitting transfer of densities within the subdivision (which give flexibility in site designing and allow clustering)
- Review criteria (to insure conformance with development standards and compatibility with surrounding neighborhoods)
- Identification of districts where cluster subdivisions will be allowed
- Minimum size requirements (in terms of total acreage or number of units)
- Open space requirements (usually requires that total lot reductions allowed equal open space) [*The Cluster Subdivision: A Cost-Effective Approach*, p. 5]

### **Benefits:**

As in PUDs, clustering decreases development costs by reducing street lengths, sidewalks, utility lines, and other site development costs. This, in turn, also helps to reduce the costs of infrastructure maintenance.

Clustering allows for more environmentally sensitive site planning by concentrating development on the most buildable portion of the site while preserving natural drainage, vegetation, and other natural features. [*The Cluster Subdivision: A Cost Effective Approach*, p. 3]

Permitting cluster subdivisions "by-right" in certain zones can provide a relatively straightforward (and therefore, less costly) way of encouraging economical development without increasing overall density.

Cluster developments can provide residents with an enhanced sense of community and security within each cluster and among neighboring clusters. [*Affordable Residential Land Development*, p. 30]

### **Key Policy Issues:**

Many communities set a minimum size for cluster subdivisions. Careful consideration should be given to minimum size requirements so as not to unduly discourage developers from using this option.

Consideration should be given to the issue of how much of a reduction in lot sizes will be allowed. Some communities set maximum reduction limits.

Cluster subdivisions usually require that the amount of open space must at least equal the total reduction in lot areas.

Communities may allow for either public or private ownership and maintenance of open space.

Cluster subdivisions may be permitted as a use "by-right" or as a special permit use, depending upon the level of development review desired by the community.

### **Cluster Developments (Seattle, Washington)**

### **23.44.024 Clustered housing planned developments**

Clustered housing planned developments (CHPDs) may be permitted as an administrative conditional use in single-family zones. A CHPD is intended to enhance and preserve natural features, encourage the construction of affordable housing, and allow for development and design flexibility. CHPDs shall be subject to the following provisions:

#### **A. Site Requirements.**

1. The minimum size of a CHPD shall be two (2) acres. Land which is of steep slope and designated environmentally sensitive in Section 23.62.002 and submerged land shall not be used to meet minimum size requirements unless it can be demonstrated that it is an integral part of the proposed development or that its exclusion would result in undesirable development in the excluded area.

2. The Director may exclude land from a CHPD if it is separated from the site by topographical conditions, if it has a poor functional relationship with the site, or if inclusion of the land would negatively impact adjacent single-family zoned lots.

**B. Type of Dwelling Units Permitted.** Only single-family dwelling units shall be permitted in a CHPD.

#### **C. Number of Dwelling Units Permitted.**

1. The number of dwelling units permitted in a CHPD shall be calculated by dividing the CHPD land area by the minimum lot size permitted by subsection A of Section 23.44.010 in the single-family zone in which the CHPD is located. Land which is of steep slope and designated environmentally sensitive in Section 23.62.002 and submerged land shall be excluded from the land used to calculate density in a CHPD unless it can be demonstrated that it is an integral part of the proposed development or that its exclusion would result in undesirable development in the excluded area. For CHPDs which include more than one (1) zone, the number of dwelling units shall be calculated based on the proportion of land area in each zone.

2. One (1) additional detached single-family structure may be permitted if the development includes recreational, meeting and/or day care facilities open to the surrounding community.

**D. Subdivision.** A CHPD may be subdivided into lots of less than the minimum size required by subsection A of Section 23.44.010.

**E. Yards.** Yards shall be required for structures within a CHPD.

1. Structures shall be set back a minimum distance of twenty feet (20') from the street property line of a CHPD.

2. No dwelling unit in a CHPD shall be closer than five feet (5') to a side lot line of an abutting single-family zoned lot.

...

6. To provide a sense of privacy, and to mitigate the effects of shadows between structures which are more than one hundred feet (100') from the property line of CHPD, required yards between structures in the CHPD shall vary depending on the design of the facing facades as follows:

a. Walls shall be not less than ten feet (10') apart at any point.

b. A principal entrance to a structure shall be at least fifteen feet (15') from the nearest interior facade which contains no principal entrance.

c. A principal entrance to a structure shall be at least twenty feet (20') from the nearest interior facade which contains a principal entrance.

7. The Director may increase the minimum required yards or require alternate spacing or placement of structures in order to preserve or enhance topographical conditions, adjacent uses and the layout of the project and to maintain a compatible scale and design with the surrounding community.

Source: Seattle Municipal Code

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## SMALL LOTS AND SMALL LOT DISTRICTS

Allowing a reduction in minimum lot sizes for single-family detached or attached housing is a basic technique for reducing residential development costs. Small lot developments, whether in a cluster or traditional "grid pattern" subdivision, increase density and the opportunity for affordable housing.

Small lots (which may range from 2,500 to 6,000 sq. ft.) and small lot districts can be utilized more fully by: (1) reducing minimum lot size requirements to allow building on lots that are currently below the specified minimum size for their locales; and (2) dividing large lots that currently have excess space. [*Affordable Residential Land Development*, p.5]

Many communities have designated special small lot zoning districts which permit development on small lots within an entire district and encourage the use of innovative site design techniques.

### **Benefits:**

The lower land and development costs associated with higher densities in small lot developments can result in significant savings, and therefore, lower cost housing.

With a higher density, land and infrastructure costs of multiple unit developments can be spread over a large number of units, resulting in reduced per-unit costs.

As in cluster development and PUDs, the reduced frontage and front-yard setbacks characteristic of small lots, allow for less pavement, sidewalk, and gutters per unit, shorter utility runs, and reduced material costs. [*Affordable Single-Family Housing - A Review of Development Standards*, p. 3]

Reduced lot size requirements allow the development of smaller houses, which may be more desirable and affordable for many of today's smaller households.

### **Key Policy Issues:**

Small lot developments require greater attention to site design -- the layout of streets, lots, mixing of lot and house sizes, variation in building setbacks and elevations, variation in exterior designs, and landscaping -- to enhance aesthetic appeal and to blend well with surrounding developments.

Some cities include a site plan review process for small lot developments to ensure quality design.

Requirements for two side-yard setbacks are often relaxed in small lot developments, allowing for "zero lot line" development (see p. 37) and other similar design innovations which can enhance the appearance and liveability of higher density developments.

Special consideration should be given to parking in small lot developments to avoid the problem of cars dominating the streetscape (the visual quality of the development as seen from the street). Consideration may be given to staggering front-yard setbacks or allowing parking access through alleys running along rear yards.

The maintenance of privacy will also require some attention in small lot developments. Use of landscaping, fences, walls, staggered setbacks, and windowless side walls, are common techniques used to enhance privacy in small lot and other high-density single-family developments.

Some small lot development ordinances require the use of buffers at the perimeter of small lot projects to lessen the visual impact from near-by larger-lot developments and to help in achieving neighborhood acceptance. [*Affordable Single-Family Housing - A Review of Development Standards*, p. 20]

### **ZERO LOT LINE DEVELOPMENT (ZLL)**

This is a technique that is used in small lot housing developments (including planned unit developments and development in small lot districts) to preserve some of the privacy and yard usefulness that is characteristic of single-family dwellings and to enhance their aesthetic appeal.

Use of conventional zoning provisions which require that the home must be set back from every lot line is not always practical for small lots since the "yards" created on each side of the house are generally very small. Zero lot line houses are sited on one side lot line and sometimes also on the rear or front lot line to maximize the available yard space. [*Planning for Affordable Single-Family Housing*, p. 5] Placing the house on one of the side lot lines doubles the amount of useable space on the other side.

Zero lot line development can be allowed in PUDs, in separate residential districts, and/or as exceptions in existing residential districts. Some communities permit ZLL houses to be sited on a common lot line so that they resemble duplexes. Other communities require that they be sited on alternate lot lines, to give the appearance of housing in a conventional development. [*Zero Lot Line Development*, p. 1]

Local officials can utilize review criteria to encourage high-quality design and include provisions in their ZLL regulations that will ensure that this type of housing is compatible with conventional housing. With these provisions, ZLL housing can be well-suited to most single-family neighborhoods. [*Zero Lot Line Development*, p. 10]

As developers around the country have gained more experience with ZLL development they have also been improving on the original concept with variations such as the "angled Z-lot," "zipper lots," and "alternate width lots." The angled Z-lot turns the home at a 45 degree angle to the street which enhances visual appeal and makes it possible to add more windows without compromising privacy. Zipper lots vary the depths of rear lot lines which concentrates open space on one side of the lot making wider lots possible with only garages located on the property line. Alternating width lots combine narrow and wide lots to give visual variety to the streetscape. [*Density by Design*, pp. 55-75]

#### **Benefits:**

Siting on one side lot line provides a useful side yard, while sitting on the front or back lot line provides a useful front or back yard area as well.

The ZLL approach permits the lot width to be reduced (to a 40 foot frontage or even less) allowing for lower site development, utility, and materials costs. Increasing allowable density generally has the effect of reducing land and site development costs allowing developers to spread costs over more units and, therefore, reduce purchase prices in these developments.

ZLL offers the lower costs associated with high-density development while still maintaining the privacy and appearance of traditional single-family detached housing.

#### **Key Policy Issues:**

Residents in established neighborhoods may resist smaller lot development if they perceive that the new housing will be of a lower quality having a negative impact on property values. Attention to design is a key factor in gaining acceptance from surrounding property owners.

Space and privacy issues may be a problem if they are not taken into consideration in the design and planning stage.

Many ZLL ordinances require windowless walls on the side of houses located on lot lines to preserve privacy.

Some communities require easements for the maintenance of the sidewall for the benefit of the adjacent property owner.

Special consideration should be given to the location and design of parking and garages which may tend to dominate the appearance of the development from the street.

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## INFILL DEVELOPMENT

Infill refers to development that takes place on land within built-up urban areas that has been passed over for various reasons during previous development phases and has remained vacant or under-utilized.

Interest in infill development stems from a desire to channel development into areas that are already served by public facilities, including police, fire, utilities, schools, and transit, to make more efficient use of existing land and public facilities.

Many communities also encourage infill development as part of a strategy to revitalize and bring new activity to older neighborhoods. This type of development can also provide opportunities for the construction of affordable housing.

Infill development can range from construction of single-family housing on one or two adjacent lots, to an entire city block containing mixed residential and commercial uses. [*Affordable Housing - Local Government Regulatory and Administrative Techniques*, p. 15]

In most mid-sized and large American cities, there are thousands of vacant sites in built-up areas. These sites represent a major opportunity for development at relatively low cost.

*Streamlining Local Regulations*  
HUD/Joint Venture for Affordable Housing

### Benefits:

Infill sites are often already served by utilities and other public services can reduce a developers up-front costs, and, in turn, may help in reducing the costs of completed housing units. [*Blueprint for Affordable Housing*, p. 57]

Infill sites in urban areas that are well served by public transit can help to reduce traffic congestion by offering housing options that are closer to employment centers. [*Blueprint for Affordable Housing*, p. 57]

New housing, or mixed-use projects resulting from infill development, can have a revitalizing effect on surrounding neighborhoods.

Encouragement of infill development which seeks to make the best use of existing urban land and infrastructure can also help to reduce development pressures on suburban locations, slowing the tendency toward urban sprawl and preserving open space and agricultural lands.

### **Key Policy Issues:**

Washington's new Growth Management Act calls for the establishment of urban growth areas which will have the effect of channeling new growth and development into existing urban areas. As cities begin planning for higher densities within the boundaries of urban growth areas, infill development will be receiving greater attention.

Where infill sites are located on higher cost urban land, multi-family housing and/or mixed-use projects, with lower per-unit development costs, may be the most appropriate type of development.

Where land costs are particularly high, incentives such as density bonuses or allowance of mixed uses, may add to a project's feasibility.

Careful design, with particular attention to enhancing compatibility with surrounding buildings, parking, and traffic problems, will help to increase neighborhood acceptance.

Communities can encourage infill development by:

- preparing an inventory of potential infill sites and making it available to developers.
- sponsoring a work-shop for developers to demonstrate infill development opportunities and tour potential sites. The type of development required on small infill parcels may be unfamiliar to some developers.
- adopting flexible zoning and building regulations which allow development of irregular or substandard infill lots.
- allowing mixed uses for infill developments which may enhance the economic feasibility of projects.
- assisting in the consolidation of infill lots into larger, more easily developed sites. Assembling large parcels can be difficult if there are different owners who may be holding out for higher prices.
- allowing sufficient density to induce housing development.

[*Blueprint for Affordable Bay Area Housing*, pp. 57-58; *Streamlining Local Regulations*, pp. 19-20]

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## ADAPTIVE REUSE

This technique involves the conversion of surplus and/or outmoded buildings including old school buildings, hospitals, train stations, warehouses, factories, etc., to economically viable new uses. In its broadest application adaptive reuse projects are aimed at conserving, preserving, and recycling surplus property by adapting older buildings to current market needs. Many such projects have involved the conversion of old structures into new office and retail space, markets, restaurants, and other similar commercial applications. Adaptive reuse projects can also be used for the production of new housing through conversion of old buildings to new apartments or studio units.

### Benefits:

Adaptive reuse is one method to introduce housing into non-residential areas.

Many older buildings which may be adapted to housing uses are located in downtown areas and may therefore offer new residents convenient access to transportation, shopping and employment centers.

Renovation and reuse of previously vacated or deteriorated buildings can be less expensive than new construction since infrastructure and other site improvements are already in place. In addition, the basic structure, although it may need renovation, is already there. With the lower construction costs associated with renovation, developers can produce affordable living units.

Projects which involve historically or architecturally significant buildings may qualify for preservation tax credits for private investors if used for low-income housings. [*Blueprint for Bay Area Housing*, p. 61]

Adaptive reuse projects can assist in revitalizing declining areas by giving new life to deteriorating buildings and by bringing in new residents.

### Key Policy Issues:

Communities can facilitate adaptive reuse projects by adopting flexible zoning policies, such as mixed-use zoning (see "Mixed-Use Development," p. 42), or by allowing residences as a permitted or conditional use in appropriate commercial and industrial zones. [*Blueprint for Bay Area Housing*, p. 61]

Utilizing this technique may involve various steps, including making inventories of potential adaptive reuse sites, amending local zoning regulations, arranging for possible property transfers of publicly-owned buildings, and providing assistance in obtaining sources of funding such as loans, grants and rent subsidies.

Some contractors are unwilling to renovate old buildings, particularly wooden structures, for which commercial financing may be difficult to find. In addition, lengthy or difficult renovations may decrease profit margins.

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## **MIXED-USE DEVELOPMENT**

Mixed-use development is an example of flexible zoning which allows various types of land uses, including office, commercial, residential, and in some cases, light industrial or manufacturing, to be combined within a single development or district. A major purpose of mixed-use zoning is to allow a balanced mix of office, commercial, and residential uses in close proximity to increase convenience to residents and reduce the number of shopping and/or commuting trips needed. Mixed-use developments can range in size from single buildings with apartments located over retail uses, to large-scale projects that include office and commercial space along with hotels, convention centers, theaters, and housing.

Mixed-use developments can be regulated in various ways. A number of communities allow residential uses by-right in certain identified commercial zones, or, in other cases, as conditional uses. Other communities allow mixed uses within a planned unit development or in special mixed-use districts which would allow this type of development by-right in designated areas.

### **Benefits:**

Mixed-use projects can offer cost savings to developers in the form of shared parking arrangements and shared costs for building operation, maintenance, and security. [*Zoning for Mixed-Use Development*, p. 1]

Commercial uses can help subsidize affordable or low-income housing, which may be necessary because of high urban land prices and development costs.

Mixed-use zoning can create new housing opportunities in areas that may have previously allowed only commercial, office, or light industrial uses.

Mixed-use zoning offers one way to accommodate the higher housing densities called for under the state's Growth Management Act. Higher density housing in commercial zones may be more politically acceptable than increasing densities in established single-family zones.

Mixed-use zoning can be utilized to better integrate land uses by locating residential developments near downtown commercial (shopping) areas. With residents working or shopping close to home, traffic congestion is reduced.

Allowing mixed uses can help to revitalize distressed neighborhoods by creating a sense of community and safety. [*Streamlining Local Regulations*, p. 20]

If a community wishes to encourage a mixture of land uses, it must do more than permit residential uses. It must actively promote them. The zoning ordinance should reflect this need by providing incentives or requirements for residential development and by encouraging the continuance of existing residential use.

"Mixed-Use Districts"

Teresa Zogby *PAS Memo No. 79-11*

**Key Policy Issues:**

Mixing of uses often requires changes in the zoning ordinance, PUD regulations, or site plan requirements.

Mixed-use developments require attention to development standards and site planning to assure that different uses are compatible (or buffered).

Mixed-use projects may be particularly useful as a type of infill development in underdeveloped commercial areas (see "Infill Development," p. 39). A common example would be small retail shops with apartments located on upper floors.

Density bonuses, or other types of incentives, may be useful to encourage developers to include residential development in mixed-use areas.

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**REZONING VACANT LAND FOR RESIDENTIAL USE**

This technique involves amending the comprehensive plan and rezoning surplus industrial and/or commercial land for residential uses. It can include land zoned for office, commercial, and industrial uses as well as underutilized agricultural land and surplus land owned by public entities.

**Benefits:**

The advantages to rezoning for residential use include close proximity to job centers, shopping and transit.

Land for affordable housing development can be created without disturbing current residential areas.

Residential use generates less traffic than industrial, office or commercial uses. [*Blueprint for Bay Area Housing*, p. 53]

**Key Policy Issues:**

A land use inventory, together with an analysis of projected need for commercial and industrial land, will assist in determining the availability of surplus commercial and industrial land supply.

Special attention must be paid to site development in terms of proximity to factories and plants which produce emissions or may be unattractive in appearance.

Special attention must be paid to the possible presence of toxic materials in the soils of industrial lands developed for housing. [*Blueprint for Bay Area Housing*, p. 54]

Allowable densities should be sufficient to ensure economical development. Higher densities will generally result in lower per unit development costs.

Consider allowing density bonuses, or other types of developer incentives, in return for construction of affordable housing.

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## OFFICE/HOUSING LINKAGE

Office/housing linkage refers to a variety of programs that either require or induce developers of commercial office buildings, or other non-residential building projects, to directly construct or make financial contributions toward the construction of market-rate or affordable housing. Linkage programs make developer compliance or participation a condition for permit approval or a prerequisite for receiving some type of development incentive (usually an increase in allowable density). Linkage provisions may apply either to new construction or expansion of existing space.

Housing linkage programs are based on the theory that new commercial office development results in increased demand for housing and that developers should make some contribution toward meeting the increased housing needs which they help to create. In essence, housing linkage programs are designed to mitigate the effects of new employment on housing within the community. [*Blueprint for Bay Area Housing*, p.51]

Linkage programs generally are either voluntary/incentive-based or mandatory. Mandatory programs work in a way that is similar to impact fees by requiring a developer to mitigate the impact of new office development on the provision of affordable housing by paying into a housing construction fund or building the required housing. Developers are usually given the opportunity to choose between a cash payment, construction, or some other type of mitigation, such as participation in a joint public-private housing project. Voluntary linkage programs offer developers various development incentives, such as density bonuses, reduced setbacks and reduced parking requirements, which add value to the developers project or reduce development costs, in exchange for the provision of affordable housing units.

## **Benefits:**

Incentive-based linkage programs benefit both the developer and the city. Developers benefit by acquiring development bonuses which increase the value of the project or reduce construction costs. Cities benefit from more affordable housing.

Developers are often free to select the most advantageous option for the provision of housing: constructing housing off-site; contributing to a housing trust fund; purchase of development rights (see "Transfer of Development Rights," p. 47) and rehabilitation of a building; or some other method provided by the city. [*Zoning Bonuses in Central Cities*, p.7]

By providing or preserving housing close to office centers, more employees are provided with the opportunity to live near where they work.

Linkage programs do not generally require the expenditure of local tax dollars to fund the construction of affordable housing units.

Office/housing linkage may be particularly useful in cities that are experiencing high growth rates with accompanying tight, high-priced housing markets to reduce some of the pressure on available housing.

A successful linkage program first must work economically; that is, it must benefit both the developer and the municipality without imposing unacceptable burdens on either.

### *Defensible Linkage*

Christine J. Andrew and Dwight Merriam

Journal of the American Planning Association

## **Key Policy Issues:**

The legal basis for mandatory office/housing linkage programs has not yet been clearly established in Washington State. Mandatory linkage requirements in other states have been challenged on various legal grounds, including whether linkage regulations constitute an illegal tax, or whether there is a "rational nexus" or relationship between new commercial development and an increased need for housing. Mandatory linkage programs should be carefully designed to provide a defensible legal foundation. Cities should be prepared to demonstrate an actual link between the need for housing and commercial development. [*Defensible Linkage*, p.205] Cities contemplating this type of program should consult their city attorney.

Voluntary/incentive-based linkage programs which provide benefits to developers in exchange for housing are more likely to avoid or withstand legal challenges.

Office/housing linkage programs will be more successful in a strong commercial office market where developments are more numerous and developers more willing to take advantage of development incentives.

Some programs allow the substantial rehabilitation of residential buildings to count as new construction, so that developers may have the option to build new residential facilities or rehabilitate existing facilities.

Linkage programs may be pre-set in an adopted zoning ordinance or negotiated on a case-by-case basis.

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## **TRANSFER OF DEVELOPMENT RIGHTS**

Transfer of development rights (TDR) programs have been implemented in a number of cities across the country as a means of generating funds for the preservation and/or rehabilitation of low- and moderate-income housing primarily in downtown areas. TDR programs have also been used as a means for preserving historic landmark structures, open space, and agricultural land.

TDR programs are based on the idea that ownership of real property is comprised of a "bundle of rights," including, among other things, a property's "development rights," which can be separated, sold, and transferred to another piece of property. "Development rights" are defined as the "difference between the existing use of the parcel and its potential use as permitted by existing law." [*Making TDR Work*, p. 203]

A TDR program allows for the sale and transfer of unused development rights from one building or parcel of land (the "sending site") to another (the "receiving site"). For example, if a four-story building were located in a zoning district that actually allowed the construction of buildings up to six stories, the unused development potential of the building would be equal to two stories (the difference between the existing use of the property and its potential use permitted under the zoning law). Under a TDR system, the development potential represented by these two stories could be separated from the property, sold, and transferred to another property. The purchased development rights can then be used to increase the development potential of the receiving site.

### **Benefits:**

Use of this technique benefits both developers, who can increase the density of their projects, and the community, which benefits from the preservation of low- and moderate-income housing in the downtown.

Increased housing opportunities in the downtown area can help to reduce traffic congestion and provide workers with housing close to employment centers.

When development rights are transferred between nearby properties, there is no net increase in allowable density in the area.

TDR programs can also be used to preserve historically significant sites in the downtown.

### **Key Policy Issues:**

TDR programs can be complex to administer and apparently work best primarily in healthy downtown real estate markets where developers have sufficient incentives to purchase and use development rights.

Communities should determine whether they are willing to accept increased density in receiving areas in order to preserve low- and moderate-income housing. Property owners in receiving areas may find TDRs to be acceptable in theory, but not in their back yards.

Once development rights have been transferred, most communities place legal restrictions on the sending site, prohibiting future use of the transferred development potential.

TDR programs often provide only limited funds which may need to be supplemented, depending upon needs, through other fund sources including private financing and public subsidies.

TDR programs must be designed on the basis of a thorough understanding of the real estate market both to determine feasibility and to develop appropriate regulations. If existing zoning allows enough density to satisfy current market demand, developers will have no interest in purchasing additional development rights.

Communities may want to consider a requirement that construction or rehabilitation of housing units be completed within some fixed period of time.

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## **EXEMPTION FROM IMPACT FEES**

Over the last ten to fifteen years, many cities in Washington have enacted measures to impose impact fees to help pay for infrastructure improvements necessitated by new developments. Fees have been collected for traffic mitigation, water and sewer utilities, parks and open space, school sites, and other purposes. Impact fees have been imposed under various sources of authority, including the State Environmental Policy Act (SEPA), the State Subdivision Law, and more recently enacted legislation authorizing "voluntary agreements" with developers to help pay for development impacts. The new State Growth Management Act (GMA) also contains specific authority for cities to impose impact fees for "public streets and roads, publicly owned parks, open space, and recreation facilities, and fire protection facilities in jurisdictions that are not part of a fire district." [ RCW 82.02.090(7) ]

Recognizing that impact fees can have a negative effect on the construction of affordable housing, some jurisdictions have enacted measures to reduce or waive such fees for projects that include affordable housing units.

The GMA also gives recognition to the effects of impact fees on housing affordability by granting cities specific authority to exempt low-income housing projects from the payment of impact fees. [See RCW 82.02.060, 1990-91 Supp.]

### **Benefits:**

Fee reductions or waivers reduce developer's upfront costs and can help to support the construction of affordable housing units.

**Key Policy Issues:**

Many communities that impose impact fees have determined that new home buyers should bear the financial responsibility for the infrastructure costs necessitated by new developments. These policies are based on the notion that the person who benefits should pay. In the case of affordable housing construction, a good argument can be made that such developments benefit the entire community, and, therefore, reductions or waivers of impact fees are appropriate.

In order to use impact fee reductions and/or waivers, communities need to review all current impact fees and exaction requirements to determine where reductions and/or waivers for affordable housing projects may be appropriate.

Impact fee reductions and/or waivers can be used in conjunction with other affordable housing techniques such as density bonuses or inclusionary requirements to promote the construction of affordable housing.

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**SUBDIVISION/DEVELOPMENT STANDARDS**

Communities can lower the costs of creating affordable housing by reevaluating their subdivision ordinances and updating or modifying regulations where possible. Minimum requirements can often be lowered to reflect actual projected usage and needs.

Most subdivision requirements involve site-improvement standards which are designed to hold down future maintenance and minimize both public and private repair and replacement costs. These standards are also used to prevent flooding, minimize accidents, protect air and water quality, and to preserve or enhance the residential setting. [*How Local Regulatory Improvements Can Help*, p. 5]

In subdivisions, the frontage, or width, of the lot determines the linear distance of streets, sidewalks and utility lines that must be put in place for each house. Communities requiring lot widths of, say, 100 feet when 50 feet would suffice, may be almost doubling the cost of the major site improvements per housing unit. Reducing the minimum lot frontage is an important way to reduce housing costs in many communities.

*How Local Regulatory Improvement Can Help*  
HUD/Joint Venture for Affordable Housing

Site improvement standards include drainage requirements, dimensions and spacing of storm drains or other storm catchments, street construction standards, minimum street pavement widths and cul-de-sac turning radii, parking standards, sidewalk standards, sewer pipe sizes and spacing of manholes.

Cost savings in site improvements allow direct reductions in the cost of new housing. Site improvement costs (including labor and materials) have been found to account for roughly 10 percent or more of development costs for a new single-family home. [*How Local Regulatory Improvements Can Help*, p. 5] Such savings passed on to the consumer, may make the difference between affordable and non-affordable housing.

Affordable housing demonstration projects in Washington State and elsewhere have utilized various types of cost reduction methods, including:

Modification of street requirements. For example, minimum pavement width (and depth in some cases) of low-volume subdivision streets have been reduced, as well as minimum turning radii of cul-de-sacs.

Curbs and gutters have been made optional, or less expensive rolled curbs were used.

Reduction of sidewalk requirements to allow narrower widths, sidewalks on one side of the street, replacement with pathways, or elimination altogether.

Costs have been decreased by using methods which reduce water and sewer utility requirements including: running the main lines close to the setback line to reduce house connection distance; common trenching for multiple utilities; shared sewer laterals and water service lines serving two or more dwellings; reduced water and sewer line sizes; and curvilinear sewers.

Grass swales and temporary impoundments may be used in many cases instead of more expensive storm drains and underground systems.

Parking space size and quantity can be reduced based on the size of current compact cars, the actual number of residents in the development, and the availability of transit. Off-street parking on driveways, in carports, or in common areas may be less costly.

[*Affordable Housing - Local Government Regulatory and Administrative Techniques*, pp. 17-24]

#### **Benefits:**

The money savings in development costs can significantly reduce the cost of housing, particularly when they can be spread over a large number of housing units.

The revision of subdivision standards can promote more efficient use of labor, materials and time, thus expediting the construction process and saving on total development costs. These savings can also be passed along to the consumer.

#### **Key Policy Issues:**

Washington State subdivision requirements and local ordinances must be carefully reviewed before implementing cost saving techniques.

Care must be taken to avoid site development shortcuts which may prove to be more costly in the long run.

Subdivision ordinances that have not been amended in many years and which may contain some out-dated standards, in particular, may benefit from a review aimed at increasing housing affordability.



The power to make it better.\*

## LAND USE AND ZONING TECHNIQUES: THEIR BENEFITS AND POLICY IMPLICATIONS

### UPZONING (HIGHER DENSITY)

Upzoning is one of the most basic and potentially effective techniques for promoting housing affordability. It involves the selective rezoning of residential land to allow greater density (measured by the number of housing units that can be placed on a parcel of land). Higher density can include both multi-family and single-family housing. Cities that allow higher densities may also enact special design requirements to ensure that new higher density developments are compatible with existing housing in the community.

Simple arithmetic reveals an extreme divergence. A single-family home on a half-acre lot uses 12.5 times as much land per household as a garden apartment of 25 units per acre. At the extremes, a steel and concrete high-rise of 80 units per acre holds 400 times as many households per acre as a five-acre lot development of single-family homes.

*Blueprint for Affordable Housing*  
King County Housing Partnership

#### Benefits:

Increasing allowable density generally has the effect of reducing land and site development costs for developers, letting them spread these costs over a larger number of units, and therefore, reducing purchase prices for homes and rents for apartments. Site development costs include the labor, material and equipment expenses for the construction of roads, sidewalks, water and sewer lines, drainage, landscaping, and other on-site work.

Higher density urban development may help to preserve farm land, open space and environmentally sensitive areas by reducing the overall amount of land needed for residential development.

Density increases near employment centers and transit stops can help reduce traffic congestion by providing more opportunities for residents to live near their jobs

Higher densities can result in more efficient use of existing infrastructure capacity (assuming it is adequate to serve growth).

#### Key Policy Issues:

Higher density development requires greater attention to design (architectural style, landscaping, lot coverage, open space, parking, etc.) to enhance aesthetic appeal and to blend in with surrounding developments.

High density developments require convenient access to recreation and transit.

Opposition in community may be based on concern over out-of-scale buildings, increased traffic congestion, longer lines, impact on property values, and the perception that people who live in higher density housing are somehow "different."

Debate over desirability of greater density is often couched in terms of "high" verses "low." Communities may want to consider other options, including "moderate" densities or a mix of densities.

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## **INCLUSIONARY ZONING**

Inclusionary zoning is a technique applied to new housing developments in which a certain portion of the units being constructed are set aside to be affordable to low- and moderate-income home buyers. [*Affordable Housing - Local Government Regulatory and Administrative Techniques*, p.16] This technique may be applied to both rental and owned units, and single- or multi-family housing projects.

Inclusionary zoning ordinances can be either mandatory, requiring developers to build a specified number of affordable units, or voluntary, based on development incentives, such as density bonuses which allow a developer to build more units (at a higher density) on the same site in exchange for the inclusion of a number of affordable units.

Inclusionary zoning ordinances generally contain provisions defining income eligibility requirements, criteria used for determining the pricing of affordable units, restrictions on the resale of affordable units (to ensure that new owners do not turn around and resell the units at market rates), and provisions for the payment of fees in-lieu of construction. [*Blueprint for Bay Area Housing*, p. 49]

### **Benefits:**

Inclusionary zoning programs do not generally require the expenditure of local tax dollars to fund the construction of affordable housing units.

Ordinances based on developer incentives, such as density bonus programs, offer a positive alternative to mandatory programs that may be resisted by local developers. Voluntary programs allow developers to determine for themselves whether participation will be cost effective.

Inclusionary programs that do not provide for density bonuses can preserve zoning restrictions on higher density development and may be more acceptable in communities opposed to general upzoning as a solution to affordable housing shortages.

Inclusionary programs avoid the problems of overconcentration, isolation, and stigmatization of affordable housing units, by integrating them into housing developments located throughout the community.

Inclusionary zoning can be flexible, since the provision for affordable housing can either be regulated or encouraged by developer incentives.

### **Key Policy Issues:**

Mandatory requirements should be relatively modest (10 -15 percent of total units) if there are no compensating developer incentives. [*Blueprint for Bay Area Housing*, p. 50]

Inclusionary programs will require some ongoing administrative oversight to provide for the collection and management of fees paid by developers who opt to pay into a housing fund and to ensure that units that are constructed will be maintained as affordable housing.

The legal authority for inclusionary programs based on mandatory requirements remains unclear in Washington. Cities contemplating this type of program should consult with their city attorney.

### **Inclusionary Zoning (Bellevue, Washington)**

#### **20.20.128 Affordable Housing**

**A. Purpose:** The purpose of this Section is to implement through regulations the responsibility of the City under the State Environmental Policy Act, Chapter 43.21C RCW, and the Growth Management Act, Chapter 17, Laws of 1990, 1st ex. sess., to consider the housing needs of all economic segments of the community, and to assure that the impacts of new development will be mitigated to the extent feasible to assure an adequate affordable housing supply in the City.

**B. General:** This Section applies to: all new residential development (Paragraph 1); all new subdivisions (Paragraph 2); and all rezone applications (Paragraph 3). These requirements are adopted pursuant to the authority of the State Environmental Policy Act and the review of all projects under these requirements is SEPA based.

**1. Multifamily Development:** At least 10% of the units in all new multifamily development proposals of ten units or greater must be affordable units. In addition, one bonus market rate unit is permitted for each affordable unit provided, up to 15% above the maximum density permitted in the underlying zoning district.

**2. Subdivision Development:** At least 10% of the units in all new subdivision proposals of ten lots or greater must be affordable units. In addition, one bonus market rate unit is

permitted for each affordable unit provided, up to 15% above the maximum density permitted in the underlying zoning district.

**3. Rezones:** All rezone proposals for an increase in residential zoning density must provide that at least 10% of the units buildable under the original maximum density be affordable units and that at least 20% of the units buildable as a result of the increase in density from the original maximum density to the total number of approved units must be affordable units. In addition, one bonus market rate unit is permitted for each of the affordable units provided to meet the minimum 10% requirement of the original maximum density, up to 15% above the original maximum density.

Source: Bellevue Municipal Code

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## DENSITY BONUSES

Many communities have developed programs that offer developers "density bonuses" in exchange for the inclusion of affordable units within a proposed residential project. A density bonus allows a developer to build more units within a project than would otherwise be permitted under normal density limits. Both zoning and subdivision regulations can be modified to allow density bonuses.

### Benefits:

See "Inclusionary Zoning," (above)

By increasing the overall value of a project, density bonuses make the provision of affordable housing units more economical.

Density bonus programs allow for the provision of affordable housing that in many cases would not be economically feasible for either the developer or the municipality.

### Key Policy Issues:

Density bonuses alone may not be sufficient, depending on market conditions, as an incentive to developers. Cities may want to consider additional incentives such as reduced setbacks, street frontages, and other cost reducing inducements.

City officials need to consider what level of additional density will be allowed in exchange for a specified number of affordable units. Density bonuses are usually expressed as a percentage of the density allowed under normal zoning regulations.

Density bonus programs must be designed on the basis of a thorough understanding of the real estate market to determine feasibility and to develop appropriate regulations. If current zoning

allows enough density to satisfy current market demand, developers may have no interest in using a density bonus.

Attention should be given to the location and design of affordable housing units within proposed projects to ensure project quality.

If most new houses in the community are built individually or two and three at a time, density bonuses may not be appropriate. This approach generally works best in larger scale developments. [*How Regulatory Improvements Can Help*, p. 19]

### **Density Bonuses (Vancouver, Washington)**

#### **20.13.310 Density provisions.**

Duplexes and multifamily developments may be allowed in the R-3 district, provided no residential development shall be constructed at a density higher than the standard density of 1 d.u./2,500 sq. ft., in the R-3 district, except as provided in Sections 20.13.311 and 20.13.312. (Ord. M-2254 (part), 1981)

#### **20.13.311 Density bonus "A."**

Residential development may be permitted up to a density of 1 d.u./2,000 sq. ft., subject to staff review, if all of the following features are provided:

- A. Compatible design;
- B. Energy-conscious construction;
- C. Private open space;
- D. One covered parking space per unit;
- E. Sidewalk and curb dedicated and constructed to city standards (if not already in place), unless in a planned development;
- F. Either solar heating, large unit size, tree preservation, or underground utilities. (Ord. M-2254 (part), 1981)

#### **20.13.312 Density bonus "B."**

Residential development may be permitted up to a density of 1 d.u./1,250 sq. ft., subject to staff review, if the following features are provided:

- A. Compatible design;
- B. A minimum twenty-thousand-square-foot site;

C. One covered parking space per unit;

D. Private open space;

E. Energy-conscious construction;

F. Sound transmission reduction;

G. Half-street, curb and sidewalk constructed to city standards (right-of-way to be dedicated). As an alternate, the developer may place funds sufficient to complete such part of the project in an escrow account by an instrument approved as to form by the city attorney. If the city does not participate in full street improvements within five years of project approval, all such money shall revert to developer upon petition and approval of the city council;

H. Either solar heating, large unit size, tree preservation, underground utilities, or one garage per unit (as replacement for covered parking). (Ord. M-2254 (part), 1981)

Source: Vancouver Municipal Code

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## PERFORMANCE/IMPACT ZONING

Performance/impact zoning is a type of flexible zoning which determines land use locations and characteristics through the application of a system of performance criteria, which establish basic development standards and limitations, and specify the conditions under which developments will be allowed.

Unlike traditional, "euclidean" zoning, which separates land uses into discreet districts based on their presumed compatibility or incompatibility with predetermined lists of permitted and prohibited uses, performance-based zoning systems evaluate proposed land uses on a case-by-case basis according to the merits of each proposal. Projects are evaluated on the basis of their particular "size, shape, location, natural features, and site development concept, rather than according to a predetermined zoning district classification." [*Streamlining Local Regulations*, pp. 15-16]

Performance zoning is based in part on the model of environmental impact analysis which focuses on identification of a project's physical impacts. Under this model, identified negative impacts must be mitigated before a project can be approved. Under a performance-based zoning system, a proposed land use must be able to show that it can meet the specified performance standards without negatively impacting the community in order to obtain a development permit.

Many communities implement performance zoning through a point system that ties development approval to the ability of a proposed project to qualify for a sufficient number of points. Points are awarded for meeting basic performance criteria.

A typical list of performance criteria may include such items as:

- compliance with density standards
- traffic generation - capacity of existing streets
- neighborhood compatibility
- impact on and capacity of existing utilities
- proximity to existing infrastructure (water and sewer lines, schools, police and fire stations, transportation facilities)
- parking
- noise levels
- proportion of open space
- protection of natural features

In theory, under this system, any use could locate next to any other use provided it could satisfy the performance standards in place. For example, a commercial use may be allowed to locate next to a residential area if the proposed use can meet certain conditions, such as landscape buffering and arterial street access rather than access via neighborhood streets. While performance based zoning systems allow considerable flexibility in determining the potential uses of a particular site, proposals must still meet the performance standards which govern actual development.

#### **Benefits:**

Performance zoning permits all types of housing units, and provides more flexibility for developers to respond to a broader spectrum of the housing market. This added flexibility encourages developers to build a broader range of housing types including affordable units. [*Affordable Housing - Local Government Regulatory and Administrative Techniques*, pp. 14-15]

By substituting performance criteria for designation of zoning districts as a means for determining land uses, performance systems have the effect of increasing the supply of developable land. The increased land supply can translate into lower land prices and lower cost development, which can contribute to the development of affordable housing. [*Flexible Zoning - How It Works*, p. 79]

Performance-based standards typically allow greater flexibility in site design and project density, which encourages use of cost-saving techniques such as building clustering, mixed-use, and small-lot developments.

#### **Key Policy Issues:**

This technique involves the establishment of detailed performance criteria to be used for impact measurement and mitigation.

A key challenge is to develop performance criteria that will mitigate the negative impacts of developments without unnecessarily restricting developers from applying creative design and use solutions. [*Flexible Zoning - How it Works*, p. 94]

Few communities have developed performance-based systems which have replaced all traditional zoning districts. Most have incorporated performance zoning within a traditional framework, but with fewer zoning districts and more flexible use and density regulations.

Performance zoning allows the marketplace to decide how to meet the specified standards that the community sets. It is a conscious legislative attempt to protect the interest of all parties involved while providing the basis for compromise and flexible criteria for development.

*Streamlining Local Regulations*  
HUD/Joint Venture for Affordable Housing

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## **MOBILE/MANUFACTURED HOUSING**

With production costs substantially lower than conventional built housing, mobile/manufactured homes represent a significant source of affordable housing, particularly for low- and moderate-income households.

For purposes of regulation, most cities make a distinction in their zoning codes between conventional site-built housing and mobile/manufactured housing. The term "mobile/manufactured home" is defined as:

"A structure, originally designed and constructed to be transportable in one or more sections, that is built on a permanent chassis, and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities that include plumbing, heating and electrical systems contained therein. The structure must comply with the National Mobile Home Construction and Safety Standards Act of 1974 as administered by the U.S. Department of Housing and Urban Development and as adopted in RCW 43.22, if applicable." [*A Model Ordinance for Siting Mobile/Manufactured Home Parks*, p. 3]

Conventional site-built housing is defined as:

"Residential units that are assembled at their site of permanent location. Construction materials and equipment are brought to the site in unassembled form. Construction is regulated by the state building code." [*A Model Ordinance for Siting Mobile/Manufactured Home Parks*, p. 4]

Mobile/manufactured homes are also distinguished from "factory-built" housing such as modular, panelized, prefabricated, and kit homes. The major difference between mobile/manufactured and factory-built homes is that they are built to different building codes. Factory-built, like conventional site-built homes, are constructed to the requirements of the Uniform Building Code (UBC), while mobile/manufactured homes, built after June 1976, are constructed according to the standards adopted by the U.S. Department of Housing and Urban Development (HUD code). Factory-built homes that are built to UBC standards generally enjoy a

greater level of acceptance in communities and are usually treated like conventional site-built homes in local zoning codes.

Cities in Washington have taken a number of different approaches to regulating the location of mobile/manufactured housing within their borders. Many cities allow mobile/manufactured homes to be placed on single-family residential lots in the same way as conventional site-built homes. Other cities have established certain zones in which mobile/manufactured homes are a permitted use, but do not permit them in all zones. Still other cities permit mobile/manufactured homes only in mobile home parks or subdivisions, but not in other residential areas.

Lack of public acceptance has been one of the biggest stumbling blocks for a more generalized siting of mobile/manufactured homes. Public perceptions of mobile/manufactured homes are, however, improving for reasons of improved appearance, better quality construction, and affordability.

As prices on conventionally built houses have rapidly increased, growing numbers of households in Washington have turned to mobile/manufactured homes as a more affordable alternative. Between 1980 and 1989, the number of mobile/manufactured homes in the state increased by 57 percent and accounted for 20 percent of all new housing (including single- and multi-family) added to the state's housing stock. As a result, mobile/manufactured homes now comprise over 9 percent of the total housing units in the state. [*Closing the Gap*, p. 4]

As affordable housing becomes harder to find, manufactured housing remains a major option for low and moderate income households seeking ownership or rental of single-family housing. As manufactured housing becomes less distinguishable from stick-built housing, and public and governmental perceptions begin to match this reality, manufactured housing should be an option in more and more locations.

*The Washington State 1992 Comprehensive Housing Affordability Strategy - Final Draft for Citizen Review*  
Washington State Department of Community Development

The problem of siting mobile/manufactured homes in Washington has recently become more pressing due to an increase in the number of mobile/manufactured home park closures. Park closures, particularly in urban areas where the number of parks has been dwindling, have caused the displacement of many mobile/manufactured homeowners, leaving them with few, if any, alternative sites for their homes. In many cases, the homes that are displaced are older, single-wide models, that are difficult to relocate because of restrictions placed by local governments and park owners. In 1991, the Washington State Legislature passed a new law establishing the Mobile Home Relocation Assistance Program to provide financial assistance to low-income mobile home park tenants who are forced to relocate due to a park closure. In addition to the financial assistance measure, this law also exempts mobile homes that are relocated due to a park closure from complying with the requirements of city or county fire, safety, or construction codes. [See RCW 59.21.105]

### **Benefits:**

Mobile/manufactured homes cost substantially less to build than conventional site-built homes. According to the Washington Manufactured Housing Association, the average price of a new multi-section mobile/manufactured home is approximately \$40,000.

Today's mobile/manufactured homes built to HUD code standards are more attractive, safe, and durable than earlier models, and can provide not only affordable, but also high quality housing, to low- and moderate-income buyers.

Growing numbers of low- and moderate-income buyers, who have been priced out of the conventional home market, are turning to mobile/manufactured homes as their only affordable alternative for homeownership. Increasing the availability of land zoned to accommodate these new homes will enhance the location options for mobile/manufactured home buyers and contribute further to their affordability.

### **Key Policy Issues:**

Cities that are planning under the new Growth Management Act are required to prepare comprehensive plans that include a housing element. The housing element must specifically identify sufficient land for housing, including manufactured housing, as well as other types of low- and moderate-income housing.

Due to the variety in mobile/manufactured home styles, flexible community ordinances may be more useful for siting mobile/manufactured homes than restrictive ordinances which may not accommodate the full range of homes that are commercially available. [*A Model Ordinance for Siting Mobile/Manufactured Home Parks*, p. 8]

Local governments can establish a design review process utilizing appearance standards to ensure that mobile/manufactured homes are compatible with the neighborhoods in which they are sited.

Allowing siting of mobile/manufactured housing on individual lots offers financial advantages. Because mobile/manufactured housing is taxable as real rather than personal property in Washington State, allowing permanently sited, mobile/manufactured homes in residential zones provides a source of tax revenue. This is also advantageous to homeowners since permanently sited mobile/manufactured homes that are compatible with their neighborhoods are likely to hold their value and be eligible for long-term loans.

Provision in zoning codes for enough mobile/manufactured park sites to provide competition among park owners will help ensure attractive, low-cost living environments for mobile/

manufactured home owners. [*How Local Regulatory Improvements Can Help*, p. 8]

Community controls can ensure that allowable lot sizes are small enough to make the development of mobile/manufactured home parks cost-effective for developers and affordable

for home owners. Space saving siting techniques such as zero lot lines and clustering are also useful in mobile/manufactured home developments.

Infill development is an option to consider in siting mobile/ manufactured housing on individual lots. This is particularly true if the lots are small or irregularly shaped, including surplus rights-of-way.

Communities may want to consider offering density bonuses as an incentive to mobile home park developers who agree to accept older, displaced mobile homes.

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## ACCESSORY DWELLING UNITS

Allowing the development of accessory units is a technique for providing affordable housing which uses surplus space in existing single-family homes. An accessory dwelling unit is an additional living unit, including separate kitchen, sleeping, and bathroom facilities, attached or detached from the primary residential unit, on a single-family lot.

Attached units, contained within a single-family home, known variously as "mother-in-law apartments," "accessory apartments," or "second units," are the most commonly encountered type of accessory dwelling unit. Accessory apartments typically involve the renovation of a garage, basement family room, attached shed, or a similar space in a single-family home.

Less common are detached "accessory cottages" or "echo homes," which are structurally independent from the primary residence. These units, typically placed in the rear yard area, are usually constructed or installed for the purpose of providing housing for an elderly parent being cared for by their adult children living in the primary unit. Accessory cottages or echo homes are less frequently allowed in zoning codes and are generally more expensive to build than accessory apartments. [*Accessory Units: An Increasing Source of Affordable Housing*, p.5]

### **Benefits:**

Accessory apartments are a relatively easy to obtain source of affordable housing.

Allowing accessory units is a way to provide affordable rental housing without the necessity of local government expenditures or subsidies.

Rents for accessory apartments are generally lower than rents for comparably sized non-accessory apartments, both because the owner lives in one of the units and because they are cheaper to build. [*Accommodating Accessory Apartments*, p. 34]

Older residents who are living on fixed incomes can use the added income to offset the costs of rising property taxes and utility bills, thus allowing them to stay in their homes. Elderly home owners may also offer lower rents to tenants in exchange for help in performing routine maintenance chores.

Young, first-time home buyers can use the extra income to help pay their mortgage payment.

Accessory apartments use surplus space in large older homes, thus making the most efficient use of the existing housing stock.

Accessory apartments encourage the upkeep of existing housing stocks since owners have extra income that can be applied to maintenance expenditures.

Accessory apartments offer renters affordable housing located in more desirable single-family neighborhoods.

### **Key Policy Issues:**

Opposition to accessory units usually arises from neighborhood concerns about declining property values, exterior appearance of accessory units, and impacts on parking and traffic from increased density.

In response to community concerns, regulations are usually devised to deal with such issues as the size of units, exterior appearance, off-street parking, and concentration of units. The challenge to policy-makers is to address the concerns of opponents without making conversions too difficult or expensive for homeowners.

If 1 in every 10 of America's owner-occupied single-family homes built before 1975 were to devote space to an accessory unit, 3.8 million rental units would be generated, increasing the supply of rental housing by about 10 percent.

*"Not In My Backyard": Removing Barriers to Affordable Housing*  
Advisory Commission on Regulatory Barriers to Affordable Housing  
U.S. Department of Housing & Urban Development

Many communities that allow accessory units do so through a special permit or conditional use procedure which may require a public hearing. An alternative which may make conversions less burdensome for applicants would be to require a public hearing only when requested by a certain number of neighboring property owners.

Although opposition groups often express concern that single-family neighborhoods will be overrun by accessory apartment conversions, studies done in cities which have allowed accessory units show that the actual number of conversions has been relatively small. [*Accessory Apartments -Using Surplus Space in Single-Family Houses*, p. 4]

American Planning Association

## PLANNED UNIT DEVELOPMENT

Planned unit development (PUD) regulations give developers an increased level of flexibility in the overall design of residential projects in exchange for a higher quality of development. PUD ordinances often allow developers greater latitude in locating buildings on the development site, mixing various housing types and densities (single- and multi-family), and land uses (including some neighborhood commercial uses), and in some cases grant density increases over those normally allowed in the zoning ordinance.

PUD ordinances may be adopted as a part of a community's zoning or subdivision code, or may be adopted as a stand-alone ordinance. PUDs may be regulated as a separate zoning district, or as a conditional or special use permitted in selected districts. Some cities also designate PUDs as "floating zones" which do not apply to a particular location until an application is received and approved.

PUDs are generally characterized by:

- flexible zoning standards (lot size, setbacks, street frontage, etc.)
  - focus on overall project design rather than traditional lot-by-lot zoning
  - encouragement of innovative site design and housing types
  - provision for on-site amenities (e.g., open space and recreational facilities)
  - negotiation between developers and the community for improved design and amenities
- [*PUDs in Practice*, p. 13]

### Benefits:

The most effective features of PUDs for encouraging affordable housing are the economies that can be achieved through clustering of buildings and the related savings in site development costs such as for streets and utilities.

Design flexibility allows for the concentration of buildings on that portion of the site that is most suitable for building, resulting in a more environmentally sensitive development that preserves open space and other natural features.

PUD ordinances often allow developers the opportunity to build at higher densities, spreading development costs over a larger number of units.

PUD ordinances often allow a mixture of land uses in addition to residential. Commercial revenues from mixed-use areas can be used to help subsidize affordable housing in the development. [*Blueprint for Bay Area Housing*, p. 55]

PUDs which allow clustering of homes on small lots and a mixture of uses, including some commercial uses, reflect not only a desire for more affordable housing developments, but also a response to new lifestyle preferences for efficient low maintenance homes, with easy access to recreation and services.

PUDs give communities greater control over design during the permit review process allowing officials to negotiate for public benefits in return for concessions on density, mixed uses, and other development standards.

**Key Policy Issues:**

PUDs require greater attention to a development's planning and design including detailed reviews by the city's planning staff, planning commission, and the city council.

Some cities may limit PUDs to residential developments (sometimes called Planned Residential Developments or PRDs) with no allowance for the inclusion of commercial uses.

Cities should be careful to avoid an overly cumbersome PUD process which may discourage developers from using this alternative. Flexibility is a major key to successful PUD projects.

Reducing minimum land area requirements for PUDs can encourage greater use of this development technique.

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**CLUSTER SUBDIVISIONS**

This technique provides for the clustering of housing units within a residential development (usually single-family detached- or attached-housing) on lots smaller than those normally allowed under existing zoning, usually with the provision that the land that is saved be set aside permanently as open space.

Cluster subdivisions generally conform to a zoning districts "gross density" requirements (measured by the number of housing units per acre relative to the total area of the site), but may increase the site's "net density" (measured by the number of housing units per acre relative to the buildable area of the site), by reducing lot sizes and concentrating development on a smaller portion of the available site. [*Affordable Housing - Local Government Regulatory and Administrative Techniques*, p. 13]

Cluster subdivisions are similar to planned unit developments (PUDs) to the extent that they both involve clustering of homes on smaller lots; however, a cluster subdivision is a narrower concept, limited to residential uses (as opposed to mixed uses allowed in a PUD), usually requiring less stringent review procedures, and which may or may not result in higher overall densities. Cluster subdivisions are more closely related to traditional subdivision development since they generally comply with existing zoning standards governing overall density and land use restrictions. [*The Cluster Subdivision: A Cost-Effective Approach*, pp.1-2]

Cluster subdivision ordinances may include:

- A statement of purpose (to clarify intent and benefits sought)

- Provisions permitting transfer of densities within the subdivision (which give flexibility in site designing and allow clustering)
- Review criteria (to insure conformance with development standards and compatibility with surrounding neighborhoods)
- Identification of districts where cluster subdivisions will be allowed
- Minimum size requirements (in terms of total acreage or number of units)
- Open space requirements (usually requires that total lot reductions allowed equal open space) [*The Cluster Subdivision: A Cost-Effective Approach*, p. 5]

### **Benefits:**

As in PUDs, clustering decreases development costs by reducing street lengths, sidewalks, utility lines, and other site development costs. This, in turn, also helps to reduce the costs of infrastructure maintenance.

Clustering allows for more environmentally sensitive site planning by concentrating development on the most buildable portion of the site while preserving natural drainage, vegetation, and other natural features. [*The Cluster Subdivision: A Cost Effective Approach*, p. 3]

Permitting cluster subdivisions "by-right" in certain zones can provide a relatively straightforward (and therefore, less costly) way of encouraging economical development without increasing overall density.

Cluster developments can provide residents with an enhanced sense of community and security within each cluster and among neighboring clusters. [*Affordable Residential Land Development*, p. 30]

### **Key Policy Issues:**

Many communities set a minimum size for cluster subdivisions. Careful consideration should be given to minimum size requirements so as not to unduly discourage developers from using this option.

Consideration should be given to the issue of how much of a reduction in lot sizes will be allowed. Some communities set maximum reduction limits.

Cluster subdivisions usually require that the amount of open space must at least equal the total reduction in lot areas.

Communities may allow for either public or private ownership and maintenance of open space.

Cluster subdivisions may be permitted as a use "by-right" or as a special permit use, depending upon the level of development review desired by the community.

### **Cluster Developments (Seattle, Washington)**

### **23.44.024 Clustered housing planned developments**

Clustered housing planned developments (CHPDs) may be permitted as an administrative conditional use in single-family zones. A CHPD is intended to enhance and preserve natural features, encourage the construction of affordable housing, and allow for development and design flexibility. CHPDs shall be subject to the following provisions:

#### **A. Site Requirements.**

1. The minimum size of a CHPD shall be two (2) acres. Land which is of steep slope and designated environmentally sensitive in Section 23.62.002 and submerged land shall not be used to meet minimum size requirements unless it can be demonstrated that it is an integral part of the proposed development or that its exclusion would result in undesirable development in the excluded area.

2. The Director may exclude land from a CHPD if it is separated from the site by topographical conditions, if it has a poor functional relationship with the site, or if inclusion of the land would negatively impact adjacent single-family zoned lots.

**B. Type of Dwelling Units Permitted.** Only single-family dwelling units shall be permitted in a CHPD.

#### **C. Number of Dwelling Units Permitted.**

1. The number of dwelling units permitted in a CHPD shall be calculated by dividing the CHPD land area by the minimum lot size permitted by subsection A of Section 23.44.010 in the single-family zone in which the CHPD is located. Land which is of steep slope and designated environmentally sensitive in Section 23.62.002 and submerged land shall be excluded from the land used to calculate density in a CHPD unless it can be demonstrated that it is an integral part of the proposed development or that its exclusion would result in undesirable development in the excluded area. For CHPDs which include more than one (1) zone, the number of dwelling units shall be calculated based on the proportion of land area in each zone.

2. One (1) additional detached single-family structure may be permitted if the development includes recreational, meeting and/or day care facilities open to the surrounding community.

**D. Subdivision.** A CHPD may be subdivided into lots of less than the minimum size required by subsection A of Section 23.44.010.

**E. Yards.** Yards shall be required for structures within a CHPD.

1. Structures shall be set back a minimum distance of twenty feet (20') from the street property line of a CHPD.

2. No dwelling unit in a CHPD shall be closer than five feet (5') to a side lot line of an abutting single-family zoned lot.

...

6. To provide a sense of privacy, and to mitigate the effects of shadows between structures which are more than one hundred feet (100') from the property line of CHPD, required yards between structures in the CHPD shall vary depending on the design of the facing facades as follows:

a. Walls shall be not less than ten feet (10') apart at any point.

b. A principal entrance to a structure shall be at least fifteen feet (15') from the nearest interior facade which contains no principal entrance.

c. A principal entrance to a structure shall be at least twenty feet (20') from the nearest interior facade which contains a principal entrance.

7. The Director may increase the minimum required yards or require alternate spacing or placement of structures in order to preserve or enhance topographical conditions, adjacent uses and the layout of the project and to maintain a compatible scale and design with the surrounding community.

Source: Seattle Municipal Code

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## SMALL LOTS AND SMALL LOT DISTRICTS

Allowing a reduction in minimum lot sizes for single-family detached or attached housing is a basic technique for reducing residential development costs. Small lot developments, whether in a cluster or traditional "grid pattern" subdivision, increase density and the opportunity for affordable housing.

Small lots (which may range from 2,500 to 6,000 sq. ft.) and small lot districts can be utilized more fully by: (1) reducing minimum lot size requirements to allow building on lots that are currently below the specified minimum size for their locales; and (2) dividing large lots that currently have excess space. [*Affordable Residential Land Development*, p.5]

Many communities have designated special small lot zoning districts which permit development on small lots within an entire district and encourage the use of innovative site design techniques.

### Benefits:

The lower land and development costs associated with higher densities in small lot developments can result in significant savings, and therefore, lower cost housing.

With a higher density, land and infrastructure costs of multiple unit developments can be spread over a large number of units, resulting in reduced per-unit costs.

As in cluster development and PUDs, the reduced frontage and front-yard setbacks characteristic of small lots, allow for less pavement, sidewalk, and gutters per unit, shorter utility runs, and reduced material costs. [*Affordable Single-Family Housing - A Review of Development Standards*, p. 3]

Reduced lot size requirements allow the development of smaller houses, which may be more desirable and affordable for many of today's smaller households.

### **Key Policy Issues:**

Small lot developments require greater attention to site design -- the layout of streets, lots, mixing of lot and house sizes, variation in building setbacks and elevations, variation in exterior designs, and landscaping -- to enhance aesthetic appeal and to blend well with surrounding developments.

Some cities include a site plan review process for small lot developments to ensure quality design.

Requirements for two side-yard setbacks are often relaxed in small lot developments, allowing for "zero lot line" development (see p. 37) and other similar design innovations which can enhance the appearance and liveability of higher density developments.

Special consideration should be given to parking in small lot developments to avoid the problem of cars dominating the streetscape (the visual quality of the development as seen from the street). Consideration may be given to staggering front-yard setbacks or allowing parking access through alleys running along rear yards.

The maintenance of privacy will also require some attention in small lot developments. Use of landscaping, fences, walls, staggered setbacks, and windowless side walls, are common techniques used to enhance privacy in small lot and other high-density single-family developments.

Some small lot development ordinances require the use of buffers at the perimeter of small lot projects to lessen the visual impact from near-by larger-lot developments and to help in achieving neighborhood acceptance. [*Affordable Single-Family Housing - A Review of Development Standards*, p. 20]

### **ZERO LOT LINE DEVELOPMENT (ZLL)**

This is a technique that is used in small lot housing developments (including planned unit developments and development in small lot districts) to preserve some of the privacy and yard usefulness that is characteristic of single-family dwellings and to enhance their aesthetic appeal.

Use of conventional zoning provisions which require that the home must be set back from every lot line is not always practical for small lots since the "yards" created on each side of the house are generally very small. Zero lot line houses are sited on one side lot line and sometimes also on the rear or front lot line to maximize the available yard space. [*Planning for Affordable Single-Family Housing*, p. 5] Placing the house on one of the side lot lines doubles the amount of useable space on the other side.

Zero lot line development can be allowed in PUDs, in separate residential districts, and/or as exceptions in existing residential districts. Some communities permit ZLL houses to be sited on a common lot line so that they resemble duplexes. Other communities require that they be sited on alternate lot lines, to give the appearance of housing in a conventional development. [*Zero Lot Line Development*, p. 1]

Local officials can utilize review criteria to encourage high-quality design and include provisions in their ZLL regulations that will ensure that this type of housing is compatible with conventional housing. With these provisions, ZLL housing can be well-suited to most single-family neighborhoods. [*Zero Lot Line Development*, p. 10]

As developers around the country have gained more experience with ZLL development they have also been improving on the original concept with variations such as the "angled Z-lot," "zipper lots," and "alternate width lots." The angled Z-lot turns the home at a 45 degree angle to the street which enhances visual appeal and makes it possible to add more windows without compromising privacy. Zipper lots vary the depths of rear lot lines which concentrates open space on one side of the lot making wider lots possible with only garages located on the property line. Alternating width lots combine narrow and wide lots to give visual variety to the streetscape. [*Density by Design*, pp. 55-75]

#### **Benefits:**

Siting on one side lot line provides a useful side yard, while sitting on the front or back lot line provides a useful front or back yard area as well.

The ZLL approach permits the lot width to be reduced (to a 40 foot frontage or even less) allowing for lower site development, utility, and materials costs. Increasing allowable density generally has the effect of reducing land and site development costs allowing developers to spread costs over more units and, therefore, reduce purchase prices in these developments.

ZLL offers the lower costs associated with high-density development while still maintaining the privacy and appearance of traditional single-family detached housing.

#### **Key Policy Issues:**

Residents in established neighborhoods may resist smaller lot development if they perceive that the new housing will be of a lower quality having a negative impact on property values. Attention to design is a key factor in gaining acceptance from surrounding property owners.

Space and privacy issues may be a problem if they are not taken into consideration in the design and planning stage.

Many ZLL ordinances require windowless walls on the side of houses located on lot lines to preserve privacy.

Some communities require easements for the maintenance of the sidewalk for the benefit of the adjacent property owner.

Special consideration should be given to the location and design of parking and garages which may tend to dominate the appearance of the development from the street.

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## INFILL DEVELOPMENT

Infill refers to development that takes place on land within built-up urban areas that has been passed over for various reasons during previous development phases and has remained vacant or under-utilized.

Interest in infill development stems from a desire to channel development into areas that are already served by public facilities, including police, fire, utilities, schools, and transit, to make more efficient use of existing land and public facilities.

Many communities also encourage infill development as part of a strategy to revitalize and bring new activity to older neighborhoods. This type of development can also provide opportunities for the construction of affordable housing.

Infill development can range from construction of single-family housing on one or two adjacent lots, to an entire city block containing mixed residential and commercial uses. [*Affordable Housing - Local Government Regulatory and Administrative Techniques*, p. 15]

In most mid-sized and large American cities, there are thousands of vacant sites in built-up areas. These sites represent a major opportunity for development at relatively low cost.

*Streamlining Local Regulations*  
HUD/Joint Venture for Affordable Housing

### **Benefits:**

Infill sites are often already served by utilities and other public services can reduce a developers up-front costs, and, in turn, may help in reducing the costs of completed housing units. [*Blueprint for Affordable Housing*, p. 57]

Infill sites in urban areas that are well served by public transit can help to reduce traffic congestion by offering housing options that are closer to employment centers. [*Blueprint for Affordable Housing*, p. 57]

New housing, or mixed-use projects resulting from infill development, can have a revitalizing effect on surrounding neighborhoods.

Encouragement of infill development which seeks to make the best use of existing urban land and infrastructure can also help to reduce development pressures on suburban locations, slowing the tendency toward urban sprawl and preserving open space and agricultural lands.

### **Key Policy Issues:**

Washington's new Growth Management Act calls for the establishment of urban growth areas which will have the effect of channeling new growth and development into existing urban areas. As cities begin planning for higher densities within the boundaries of urban growth areas, infill development will be receiving greater attention.

Where infill sites are located on higher cost urban land, multi-family housing and/or mixed-use projects, with lower per-unit development costs, may be the most appropriate type of development.

Where land costs are particularly high, incentives such as density bonuses or allowance of mixed uses, may add to a project's feasibility.

Careful design, with particular attention to enhancing compatibility with surrounding buildings, parking, and traffic problems, will help to increase neighborhood acceptance.

Communities can encourage infill development by:

- preparing an inventory of potential infill sites and making it available to developers.
- sponsoring a work-shop for developers to demonstrate infill development opportunities and tour potential sites. The type of development required on small infill parcels may be unfamiliar to some developers.
- adopting flexible zoning and building regulations which allow development of irregular or substandard infill lots.
- allowing mixed uses for infill developments which may enhance the economic feasibility of projects.
- assisting in the consolidation of infill lots into larger, more easily developed sites. Assembling large parcels can be difficult if there are different owners who may be holding out for higher prices.
- allowing sufficient density to induce housing development.

[*Blueprint for Affordable Bay Area Housing*, pp. 57-58; *Streamlining Local Regulations*, pp. 19-20]

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## **ADAPTIVE REUSE**

This technique involves the conversion of surplus and/or outmoded buildings including old school buildings, hospitals, train stations, warehouses, factories, etc., to economically viable new uses. In its broadest application adaptive reuse projects are aimed at conserving, preserving, and recycling surplus property by adapting older buildings to current market needs. Many such projects have involved the conversion of old structures into new office and retail space, markets, restaurants, and other similar commercial applications. Adaptive reuse projects can also be used for the production of new housing through conversion of old buildings to new apartments or studio units.

### **Benefits:**

Adaptive reuse is one method to introduce housing into non-residential areas.

Many older buildings which may be adapted to housing uses are located in downtown areas and may therefore offer new residents convenient access to transportation, shopping and employment centers.

Renovation and reuse of previously vacated or deteriorated buildings can be less expensive than new construction since infrastructure and other site improvements are already in place. In addition, the basic structure, although it may need renovation, is already there. With the lower construction costs associated with renovation, developers can produce affordable living units.

Projects which involve historically or architecturally significant buildings may qualify for preservation tax credits for private investors if used for low-income housings. [*Blueprint for Bay Area Housing*, p. 61]

Adaptive reuse projects can assist in revitalizing declining areas by giving new life to deteriorating buildings and by bringing in new residents.

### **Key Policy Issues:**

Communities can facilitate adaptive reuse projects by adopting flexible zoning policies, such as mixed-use zoning (see "Mixed-Use Development," p. 42), or by allowing residences as a permitted or conditional use in appropriate commercial and industrial zones. [*Blueprint for Bay Area Housing*, p. 61]

Utilizing this technique may involve various steps, including making inventories of potential adaptive reuse sites, amending local zoning regulations, arranging for possible property transfers of publicly-owned buildings, and providing assistance in obtaining sources of funding such as loans, grants and rent subsidies.

Some contractors are unwilling to renovate old buildings, particularly wooden structures, for which commercial financing may be difficult to find. In addition, lengthy or difficult renovations may decrease profit margins.

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## **MIXED-USE DEVELOPMENT**

Mixed-use development is an example of flexible zoning which allows various types of land uses, including office, commercial, residential, and in some cases, light industrial or manufacturing, to be combined within a single development or district. A major purpose of mixed-use zoning is to allow a balanced mix of office, commercial, and residential uses in close proximity to increase convenience to residents and reduce the number of shopping and/or commuting trips needed. Mixed-use developments can range in size from single buildings with apartments located over retail uses, to large-scale projects that include office and commercial space along with hotels, convention centers, theaters, and housing.

Mixed-use developments can be regulated in various ways. A number of communities allow residential uses by-right in certain identified commercial zones, or, in other cases, as conditional uses. Other communities allow mixed uses within a planned unit development or in special mixed-use districts which would allow this type of development by-right in designated areas.

### **Benefits:**

Mixed-use projects can offer cost savings to developers in the form of shared parking arrangements and shared costs for building operation, maintenance, and security. [*Zoning for Mixed-Use Development*, p. 1]

Commercial uses can help subsidize affordable or low-income housing, which may be necessary because of high urban land prices and development costs.

Mixed-use zoning can create new housing opportunities in areas that may have previously allowed only commercial, office, or light industrial uses.

Mixed-use zoning offers one way to accommodate the higher housing densities called for under the state's Growth Management Act. Higher density housing in commercial zones may be more politically acceptable than increasing densities in established single-family zones.

Mixed-use zoning can be utilized to better integrate land uses by locating residential developments near downtown commercial (shopping) areas. With residents working or shopping close to home, traffic congestion is reduced.

Allowing mixed uses can help to revitalize distressed neighborhoods by creating a sense of community and safety. [*Streamlining Local Regulations*, p. 20]

If a community wishes to encourage a mixture of land uses, it must do more than permit residential uses. It must actively promote them. The zoning ordinance should reflect this need by providing incentives or requirements for residential development and by encouraging the continuance of existing residential use.

"Mixed-Use Districts"

Teresa Zogby *PAS Memo No. 79-11*

**Key Policy Issues:**

Mixing of uses often requires changes in the zoning ordinance, PUD regulations, or site plan requirements.

Mixed-use developments require attention to development standards and site planning to assure that different uses are compatible (or buffered).

Mixed-use projects may be particularly useful as a type of infill development in underdeveloped commercial areas (see "Infill Development," p. 39). A common example would be small retail shops with apartments located on upper floors.

Density bonuses, or other types of incentives, may be useful to encourage developers to include residential development in mixed-use areas.

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**REZONING VACANT LAND FOR RESIDENTIAL USE**

This technique involves amending the comprehensive plan and rezoning surplus industrial and/or commercial land for residential uses. It can include land zoned for office, commercial, and industrial uses as well as underutilized agricultural land and surplus land owned by public entities.

**Benefits:**

The advantages to rezoning for residential use include close proximity to job centers, shopping and transit.

Land for affordable housing development can be created without disturbing current residential areas.

Residential use generates less traffic than industrial, office or commercial uses. [*Blueprint for Bay Area Housing*, p. 53]

**Key Policy Issues:**

A land use inventory, together with an analysis of projected need for commercial and industrial land, will assist in determining the availability of surplus commercial and industrial land supply.

Special attention must be paid to site development in terms of proximity to factories and plants which produce emissions or may be unattractive in appearance.

Special attention must be paid to the possible presence of toxic materials in the soils of industrial lands developed for housing. [*Blueprint for Bay Area Housing*, p. 54]

Allowable densities should be sufficient to ensure economical development. Higher densities will generally result in lower per unit development costs.

Consider allowing density bonuses, or other types of developer incentives, in return for construction of affordable housing.

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## **OFFICE/HOUSING LINKAGE**

Office/housing linkage refers to a variety of programs that either require or induce developers of commercial office buildings, or other non-residential building projects, to directly construct or make financial contributions toward the construction of market-rate or affordable housing. Linkage programs make developer compliance or participation a condition for permit approval or a prerequisite for receiving some type of development incentive (usually an increase in allowable density). Linkage provisions may apply either to new construction or expansion of existing space.

Housing linkage programs are based on the theory that new commercial office development results in increased demand for housing and that developers should make some contribution toward meeting the increased housing needs which they help to create. In essence, housing linkage programs are designed to mitigate the effects of new employment on housing within the community. [*Blueprint for Bay Area Housing*, p.51]

Linkage programs generally are either voluntary/incentive-based or mandatory. Mandatory programs work in a way that is similar to impact fees by requiring a developer to mitigate the impact of new office development on the provision of affordable housing by paying into a housing construction fund or building the required housing. Developers are usually given the opportunity to choose between a cash payment, construction, or some other type of mitigation, such as participation in a joint public-private housing project. Voluntary linkage programs offer developers various development incentives, such as density bonuses, reduced setbacks and reduced parking requirements, which add value to the developers project or reduce development costs, in exchange for the provision of affordable housing units.

## **Benefits:**

Incentive-based linkage programs benefit both the developer and the city. Developers benefit by acquiring development bonuses which increase the value of the project or reduce construction costs. Cities benefit from more affordable housing.

Developers are often free to select the most advantageous option for the provision of housing: constructing housing off-site; contributing to a housing trust fund; purchase of development rights (see "Transfer of Development Rights," p. 47) and rehabilitation of a building; or some other method provided by the city. [*Zoning Bonuses in Central Cities*, p.7]

By providing or preserving housing close to office centers, more employees are provided with the opportunity to live near where they work.

Linkage programs do not generally require the expenditure of local tax dollars to fund the construction of affordable housing units.

Office/housing linkage may be particularly useful in cities that are experiencing high growth rates with accompanying tight, high-priced housing markets to reduce some of the pressure on available housing.

A successful linkage program first must work economically; that is, it must benefit both the developer and the municipality without imposing unacceptable burdens on either.

### *Defensible Linkage*

Christine J. Andrew and Dwight Merriam

Journal of the American Planning Association

## **Key Policy Issues:**

The legal basis for mandatory office/housing linkage programs has not yet been clearly established in Washington State. Mandatory linkage requirements in other states have been challenged on various legal grounds, including whether linkage regulations constitute an illegal tax, or whether there is a "rational nexus" or relationship between new commercial development and an increased need for housing. Mandatory linkage programs should be carefully designed to provide a defensible legal foundation. Cities should be prepared to demonstrate an actual link between the need for housing and commercial development. [*Defensible Linkage*, p.205] Cities contemplating this type of program should consult their city attorney.

Voluntary/incentive-based linkage programs which provide benefits to developers in exchange for housing are more likely to avoid or withstand legal challenges.

Office/housing linkage programs will be more successful in a strong commercial office market where developments are more numerous and developers more willing to take advantage of development incentives.

Some programs allow the substantial rehabilitation of residential buildings to count as new construction, so that developers may have the option to build new residential facilities or rehabilitate existing facilities.

Linkage programs may be pre-set in an adopted zoning ordinance or negotiated on a case-by-case basis.

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## **TRANSFER OF DEVELOPMENT RIGHTS**

Transfer of development rights (TDR) programs have been implemented in a number of cities across the country as a means of generating funds for the preservation and/or rehabilitation of low- and moderate-income housing primarily in downtown areas. TDR programs have also been used as a means for preserving historic landmark structures, open space, and agricultural land.

TDR programs are based on the idea that ownership of real property is comprised of a "bundle of rights," including, among other things, a property's "development rights," which can be separated, sold, and transferred to another piece of property. "Development rights" are defined as the "difference between the existing use of the parcel and its potential use as permitted by existing law." [*Making TDR Work*, p. 203]

A TDR program allows for the sale and transfer of unused development rights from one building or parcel of land (the "sending site") to another (the "receiving site"). For example, if a four-story building were located in a zoning district that actually allowed the construction of buildings up to six stories, the unused development potential of the building would be equal to two stories (the difference between the existing use of the property and its potential use permitted under the zoning law). Under a TDR system, the development potential represented by these two stories could be separated from the property, sold, and transferred to another property. The purchased development rights can then be used to increase the development potential of the receiving site.

### **Benefits:**

Use of this technique benefits both developers, who can increase the density of their projects, and the community, which benefits from the preservation of low- and moderate-income housing in the downtown.

Increased housing opportunities in the downtown area can help to reduce traffic congestion and provide workers with housing close to employment centers.

When development rights are transferred between nearby properties, there is no net increase in allowable density in the area.

TDR programs can also be used to preserve historically significant sites in the downtown.

### **Key Policy Issues:**

TDR programs can be complex to administer and apparently work best primarily in healthy downtown real estate markets where developers have sufficient incentives to purchase and use development rights.

Communities should determine whether they are willing to accept increased density in receiving areas in order to preserve low- and moderate-income housing. Property owners in receiving areas may find TDRs to be acceptable in theory, but not in their back yards.

Once development rights have been transferred, most communities place legal restrictions on the sending site, prohibiting future use of the transferred development potential.

TDR programs often provide only limited funds which may need to be supplemented, depending upon needs, through other fund sources including private financing and public subsidies.

TDR programs must be designed on the basis of a thorough understanding of the real estate market both to determine feasibility and to develop appropriate regulations. If existing zoning allows enough density to satisfy current market demand, developers will have no interest in purchasing additional development rights.

Communities may want to consider a requirement that construction or rehabilitation of housing units be completed within some fixed period of time.

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## **EXEMPTION FROM IMPACT FEES**

Over the last ten to fifteen years, many cities in Washington have enacted measures to impose impact fees to help pay for infrastructure improvements necessitated by new developments. Fees have been collected for traffic mitigation, water and sewer utilities, parks and open space, school sites, and other purposes. Impact fees have been imposed under various sources of authority, including the State Environmental Policy Act (SEPA), the State Subdivision Law, and more recently enacted legislation authorizing "voluntary agreements" with developers to help pay for development impacts. The new State Growth Management Act (GMA) also contains specific authority for cities to impose impact fees for "public streets and roads, publicly owned parks, open space, and recreation facilities, and fire protection facilities in jurisdictions that are not part of a fire district." [ RCW 82.02.090(7) ]

Recognizing that impact fees can have a negative effect on the construction of affordable housing, some jurisdictions have enacted measures to reduce or waive such fees for projects that include affordable housing units.

The GMA also gives recognition to the effects of impact fees on housing affordability by granting cities specific authority to exempt low-income housing projects from the payment of impact fees. [See RCW 82.02.060, 1990-91 Supp.]

### **Benefits:**

Fee reductions or waivers reduce developer's upfront costs and can help to support the construction of affordable housing units.

### **Key Policy Issues:**

Many communities that impose impact fees have determined that new home buyers should bear the financial responsibility for the infrastructure costs necessitated by new developments. These policies are based on the notion that the person who benefits should pay. In the case of affordable housing construction, a good argument can be made that such developments benefit the entire community, and, therefore, reductions or waivers of impact fees are appropriate.

In order to use impact fee reductions and/or waivers, communities need to review all current impact fees and exaction requirements to determine where reductions and/or waivers for affordable housing projects may be appropriate.

Impact fee reductions and/or waivers can be used in conjunction with other affordable housing techniques such as density bonuses or inclusionary requirements to promote the construction of affordable housing.

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## **SUBDIVISION/DEVELOPMENT STANDARDS**

Communities can lower the costs of creating affordable housing by reevaluating their subdivision ordinances and updating or modifying regulations where possible. Minimum requirements can often be lowered to reflect actual projected usage and needs.

Most subdivision requirements involve site-improvement standards which are designed to hold down future maintenance and minimize both public and private repair and replacement costs. These standards are also used to prevent flooding, minimize accidents, protect air and water quality, and to preserve or enhance the residential setting. [*How Local Regulatory Improvements Can Help*, p. 5]

In subdivisions, the frontage, or width, of the lot determines the linear distance of streets, sidewalks and utility lines that must be put in place for each house. Communities requiring lot widths of, say, 100 feet when 50 feet would suffice, may be almost doubling the cost of the major site improvements per housing unit. Reducing the minimum lot frontage is an important way to reduce housing costs in many communities.

*How Local Regulatory Improvement Can Help*  
HUD/Joint Venture for Affordable Housing

Site improvement standards include drainage requirements, dimensions and spacing of storm drains or other storm catchments, street construction standards, minimum street pavement widths and cul-de-sac turning radii, parking standards, sidewalk standards, sewer pipe sizes and spacing of manholes.

Cost savings in site improvements allow direct reductions in the cost of new housing. Site improvement costs (including labor and materials) have been found to account for roughly 10 percent or more of development costs for a new single-family home. [*How Local Regulatory Improvements Can Help*, p. 5] Such savings passed on to the consumer, may make the difference between affordable and non-affordable housing.

Affordable housing demonstration projects in Washington State and elsewhere have utilized various types of cost reduction methods, including:

Modification of street requirements. For example, minimum pavement width (and depth in some cases) of low-volume subdivision streets have been reduced, as well as minimum turning radii of cul-de-sacs.

Curbs and gutters have been made optional, or less expensive rolled curbs were used.

Reduction of sidewalk requirements to allow narrower widths, sidewalks on one side of the street, replacement with pathways, or elimination altogether.

Costs have been decreased by using methods which reduce water and sewer utility requirements including: running the main lines close to the setback line to reduce house connection distance; common trenching for multiple utilities; shared sewer laterals and water service lines serving two or more dwellings; reduced water and sewer line sizes; and curvilinear sewers.

Grass swales and temporary impoundments may be used in many cases instead of more expensive storm drains and underground systems.

Parking space size and quantity can be reduced based on the size of current compact cars, the actual number of residents in the development, and the availability of transit. Off-street parking on driveways, in carports, or in common areas may be less costly.

[*Affordable Housing - Local Government Regulatory and Administrative Techniques*, pp. 17-24]

#### **Benefits:**

The money savings in development costs can significantly reduce the cost of housing, particularly when they can be spread over a large number of housing units.

The revision of subdivision standards can promote more efficient use of labor, materials and time, thus expediting the construction process and saving on total development costs. These savings can also be passed along to the consumer.

#### **Key Policy Issues:**

Washington State subdivision requirements and local ordinances must be carefully reviewed before implementing cost saving techniques.

Care must be taken to avoid site development shortcuts which may prove to be more costly in the long run.

Subdivision ordinances that have not been amended in many years and which may contain some out-dated standards, in particular, may benefit from a review aimed at increasing housing affordability.



## METROPOLITAN POLICY PROGRAM

# The Affordability Index: A New Tool for Measuring the True Affordability of a Housing Choice

By Center for Transit-Oriented Development and Center for Neighborhood Technology

*This brief describes a new information tool developed by the Urban Markets Initiative to quantify, for the first time, the impact of transportation costs on the affordability of housing choices. This brief explains the background, creation, and purpose of this new tool. The first section provides a project overview and a short summary of the method used to create the Affordability Index. The next section highlights the results from testing the index in a seven-county area in and around Minneapolis-St. Paul, MN. To demonstrate the usefulness of this tool at a neighborhood level, the third section projects the effect of transportation and housing choices on three hypothetical low- and moderate-income families in each of four different neighborhoods in the Twin Cities. The brief concludes with suggested policy recommendations and applications of the new tool for various actors in the housing market, and for regulators, planners, and funders in the transportation and land use arenas at all levels of government.*

*The Housing and Transportation Affordability Index is a groundbreaking innovation because it prices the trade-offs that households make between housing and transportation costs and the savings that derive from living in communities that are near shopping, schools, and work, and that boast a transit-rich environment. Built using data sets that are available for every transit-served community in the nation, the tool can be applied in neighborhoods in more than 42 cities in the United States.<sup>1</sup> It provides consumers, policymakers, lenders, and investors with the information needed to make better decisions about which neighborhoods are truly affordable, and illuminate the implications of their policy and investment choices.*

### I. Housing and Transportation: Key Elements of the Cost of Living

**T**he cost of living for an American family consists of many components. The two largest are housing and transportation. Housing affordability is most commonly understood as the extent to which a household's income can cover the purchase price of a home. However, the traditional definition of housing affordability may be too limited. The cost of transportation, while not currently factored in to the affordability equation, has become increasingly central to family budgets, given their choices to live

farther from jobs and as today's development patterns require families to use their cars more often to run errands or take their children to school. Therefore, the affordability of housing should be considered in the context of the transportation costs associated with the neighborhood in which the home is located. It is the interaction between housing and location that provides a more meaningful measure of affordability.

Although housing is considered affordable if it accounts for roughly 30 percent or less of a household's monthly budget, location costs, and more specifically transportation costs, are often dramatically underestimated or ignored. Nationally, transportation is the second largest household expenditure after housing, ranging from less than 10 percent of the average household's expenditures in transit-rich areas to nearly 25 percent in many other areas. Based on calculations using the 2003 Consumer Expenditure Survey, we estimate that the average U.S. household spends 19 percent of its budget on transportation.

As this brief demonstrates, transportation costs also vary widely by neighborhood. Generally speaking, housing is cheaper in areas that lack new investment or that is farther from the central business district, while household transportation costs increase as one moves farther out from urban centers.

A growing body of research has shown a strong relationship between increased density, transit access, and pedestrian friendliness, on the one hand, and reduced vehicle miles and automobile ownership, on the other.<sup>2</sup> With the high and rising cost of driving, owing to rising gasoline prices and the increasing need to drive for most household trips, the transportation savings that can result from living in a dense, convenient, and transit-friendly community can be considerable.

*The significant increase in recent gas prices has important impacts on affordability. At \$3.00 per gallon, double the price of just two years ago, the average household will increase its total transportation expenditures by 14 percent, or \$1,200 per year. This increase alone is 3 percent of the median income household's annual earnings.*

Until now, a household's transportation demand was considered to be primarily driven by household income and size. This research shows that larger and wealthier households tend to own more vehicles, select more expensive models, and drive more miles. Our study shows, however, that transportation demand and corresponding costs are highly correlated with characteristics of the neighborhood. Even among wealthy households, neighborhood characteristics influence how much is spent on transportation and how many vehicles are owned, given that the characteristics of place also shape transportation demand. Neighborhood characteristics such as density; walkability; the availability and quality of transit service; convenient access to amenities such as grocery stores, dry cleaners, day care, and movie theaters; and the number of accessible jobs shape how residents get around, where they go, and how much they ultimately spend on transportation.<sup>3</sup> Neighborhoods with the above characteristics are considered "location efficient," providing convenient access to shopping, services, and jobs, and low-cost transportation alternatives to the auto.

These costs, however, are not considered in the housing affordability standards used to allocate low-income housing tax credits or vouchers for other affordable housing programs. Nor are they considered—except with the Location Efficient Mortgage<sup>®</sup>—when lenders score individual home loan applications. Reframing nationally accepted affordability measures to combine both housing and transportation costs could allow low-income households to more easily qualify for homeownership, provide a substantial incentive to the private sector to invest in transit-oriented locations, and support the public sector in making investments that lower household transportation costs.

The Affordability Index calculates the true affordability of a home based on its market value and the transportation costs incurred by its location. It does so not only at the broad metropolitan area level, but also at the neighborhood level, where hundreds of consumer,

investment, development, and infrastructure decisions are made every day. Used at a community level, the Affordability Index can help households assess which neighborhoods in a region are most affordable, and it can help policymakers determine where resources should be focused to enhance affordability.

## II. Building the Affordability Index

The Affordability Index calculates the sum of average housing costs plus the average transportation costs for a neighborhood (represented by a census block group), divided by average neighborhood income. In the simplified formula, total housing costs include current housing sales prices and rents, and total transportation costs equal the sum of the costs for auto ownership, auto use, and transit. The index can be adjusted for an individual household to reflect household income, the price members intend to pay for a new home, and a particular neighborhood's transportation costs.

The Affordability Index builds on the analysis and theory of the Location Efficient Mortgage® (LEM), which was developed by a group of researchers, including members of the

$$\text{Affordability Index} = \frac{\text{Housing Costs} + \text{Transportation Costs}}{\text{Income}}$$

Center for Transit-Oriented Development team.<sup>4</sup> The LEM uses actual vehicle miles traveled for millions of households in the San Francisco Bay Area, Southern California, and the Chicago region to generate models that predict auto ownership and vehicle miles traveled, based on residential density, transit availability, and neighborhood walkability. The model results in a "location efficient value" for each neighborhood within these regions. The researchers selected these characteristics on the basis of the extensive literature on transportation costs in relation to the built environment. The location efficient model was then used to create a Fannie Mae-backed mortgage product that allows the underwriter to give additional credit for the location efficiency of an area. The Affordability Index is based on the proven concepts in the location efficiency study—that transportation costs are determined by both neighborhood and socioeconomic characteristics.

In the Affordability Index, household transportation costs are estimated as three separate components: costs of auto ownership, auto use, and transit use. These three components are the dependent variables in the model and are affected by the combination of seven independent built environment variables and two independent household variables. Together, these nine variables represent the independent neighborhood and socioeconomic variables that predict household transportation costs at the census block group level, the smallest geography available to approximate neighborhoods. It is important to model these costs at a neighborhood level, given that the independent variables can vary block by block.

Modeled values for these variables are derived primarily from the U.S. Decennial Census 2000 Survey; the Census Transportation Planning Package 2000 (CTPP 2000); the National Household Travel Survey (NHTS); and the National Transit-Oriented Development (TOD) database. The TOD database was developed by the CTOD with the support of the Federal Transit Administration, Fannie Mae, and the Surdna Foundation. It contains the demographic, land use, and transportation characteristics of neighborhoods located within a half mile of 4,000 existing and planned fixed-guideway transit stations in the United States. The transportation characteristics in the database include the location of train stations and lines, train frequencies, bus routes, and actual and estimated bus route frequencies. Bus route information was collected from the Federal Transit Administration and from local transit authorities. Table 1 provides a complete list of the variables, their source, and their use in the transportation cost model.

We combined the variables in a regression model that account for changes in the loca-

tion variables that influence transportation costs, while controlling for the household characteristics that, to a lesser extent, also determine the costs. To develop the exact regression formula, we tested each of the independent variables separately against the dependent variables, and then in combination to determine their relationship. The analysis showed that *the independent variables co-vary and are interdependent of one another. Thus, no one variable, such as transit accessibility or household income, by itself completely determines transportation costs. Rather, it is the combination of these variables that determines how many autos a household owns, how many miles members drive each vehicle, and how much transit they use. Because transportation is an integral part of our daily routines, it makes sense that it is the combination of how a household commutes to work, how far away the grocery store is, how children get to school or other activities, and how much a family earns that determines total household transportation costs.*<sup>5</sup> The Detailed Methods section offers a fuller description of the process.

### III. Testing the Index: Minneapolis-St. Paul

**W**e tested the Affordability Index in the Minneapolis-St. Paul region to refine the method and to determine the ways in which it can be used to affect regional housing and transportation decisions. During this process we worked with a group of transportation and housing experts in the Minneapolis region to refine the methodology and data sets used in the analysis.

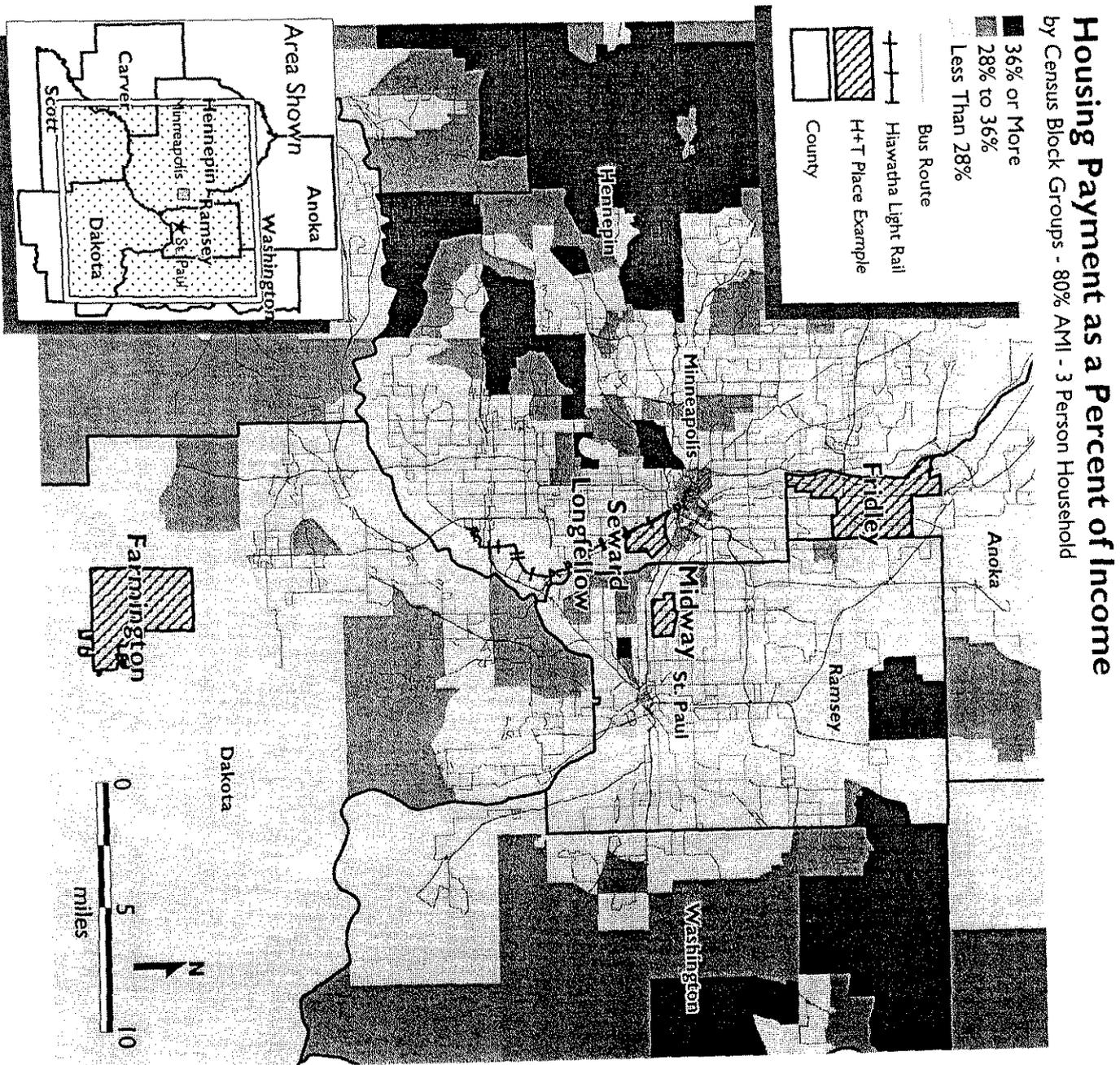
More than one-half of households in the Twin Cities spend more than \$10,000 per year on transportation. Including the 40 percent increase in recent gas prices, transportation costs for all Twin Cities households approach a billion dollars per month. Although total transportation costs in the region are higher than the national average, average housing costs are significantly below the national benchmark of affordability. On average, Twin City households spend only about 20 percent of their monthly expenditures on housing. Taken together, households in the Twin Cities spend roughly 40 percent of their monthly pre-tax income on housing and transportation. A closer look at specific communities and neighborhoods reveals a range of costs for each item, however, which reflects proximity to transit and to the central business district. Escalating home prices have begun to make affordable housing a greater concern in the Twin Cities.

#### *A. Using the Affordability Index to Develop a Regional Perspective on Housing and Transportation Costs*

Maps 1 and 2 illustrate the difference in affordability when considering only housing costs and when considering the combined cost of housing and transportation. Both maps depict the cost for households earning 80 percent of the area median income. Map 1 shows the monthly mortgage cost as a percentage of income. The yellow areas are those that would traditionally be deemed affordable; they are in accord with the lending guideline that requires households to spend 28 percent or less of their income on housing. Except for the areas directly west and east of Minneapolis and St. Paul, the majority of the region's housing appears affordable for this income group. Both maps show the location of the new Hiawatha light rail line. However, the Affordability Index analysis does not include the impact of the line because it did not open until 2004. All data in the Affordability Index are a snapshot of 2000. It will be interesting to see the effects of this new investment using future data.

Map 2 adds transportation costs. The Affordability Index uses a range for housing and transportation costs: less than 47 percent; 47 to 74 percent, and 75 percent and above. The benchmark rate of 47 percent represents the sum of the current national average expenditure on transportation (19 percent of income) plus the mortgage underwriting standard for housing debt (28 percent or less of income). On the basis of the guideline that a household should spend no more than 47 percent of its income on housing and transporta-

Map 1. Housing as a percentage of income for a household earning 80 percent area median income (AMI)



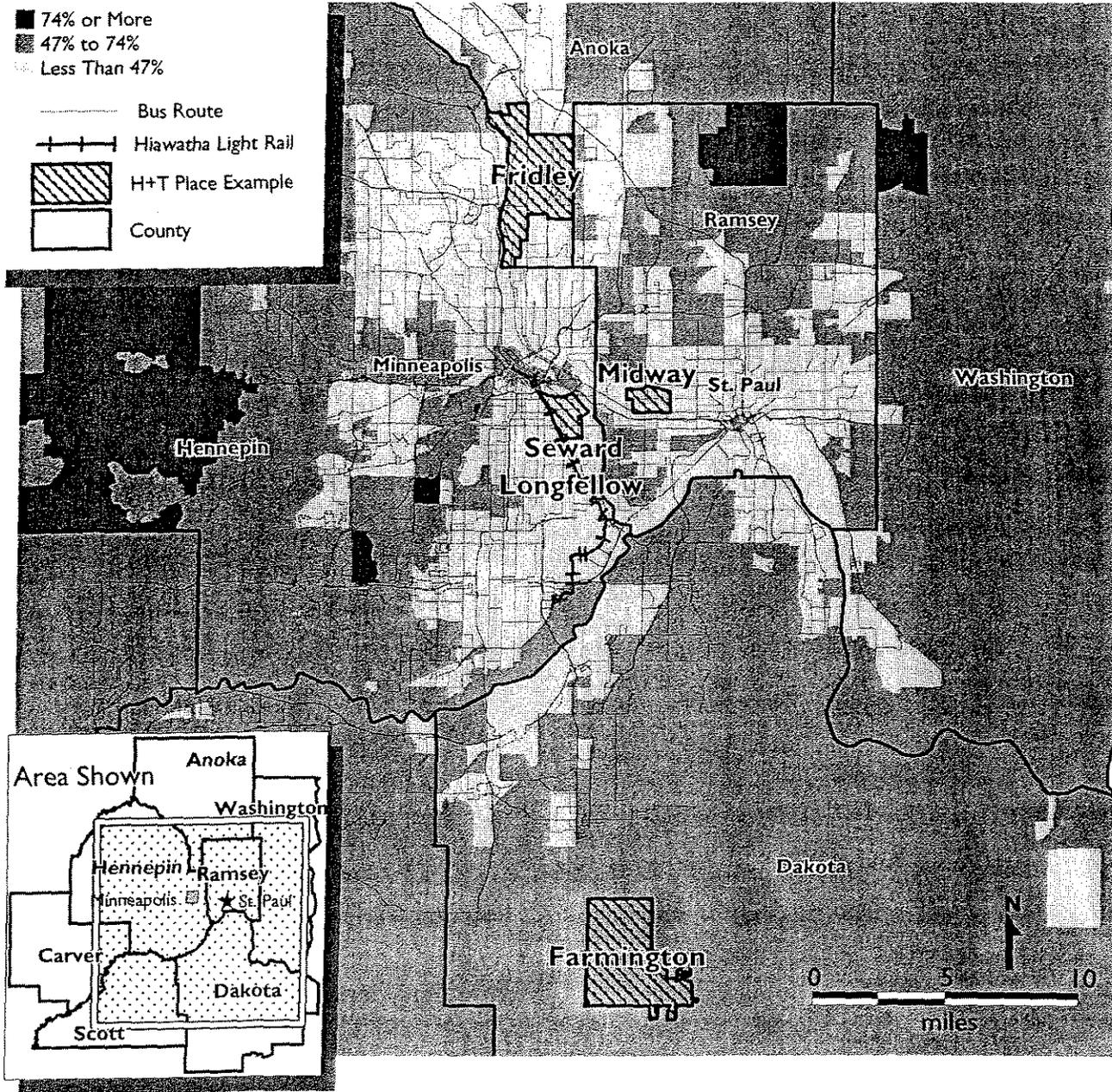
Map 2. Affordability Index results for households earning 80 percent area median income (AMI)

### “H + T” as a Percent of Income

by Census Block Groups - 80% AMI - 3 Person Household

- 74% or More
- 47% to 74%
- Less Than 47%

- Bus Route
- +— Hiawatha Light Rail
- ▨ H+T Place Example
- County



ion, the areas considered affordable on a \$43,443 income contract substantially from those observed in Map 1.

The presence or absence of transit helps explain the difference in affordability between these two maps. The bus system, shown on Map 2, is extensive, offers frequent service, and is well used in the core of the region. Even without fixed-rail transit (the Census 2000 preceded the opening of the region's Hiawatha light rail line), 8 percent of the workers in the Minneapolis-St. Paul region commuted by something other than an auto: by bus, bicycle, or on foot. When looking at the cities of Minneapolis and St. Paul, which have the most extensive bus system in the region, the non-auto commute rates were even higher, at 23 percent and 15.4 percent, respectively. Thus, the Affordability Index results show that the combined costs of housing and transportation are most affordable in areas well served by public transit.

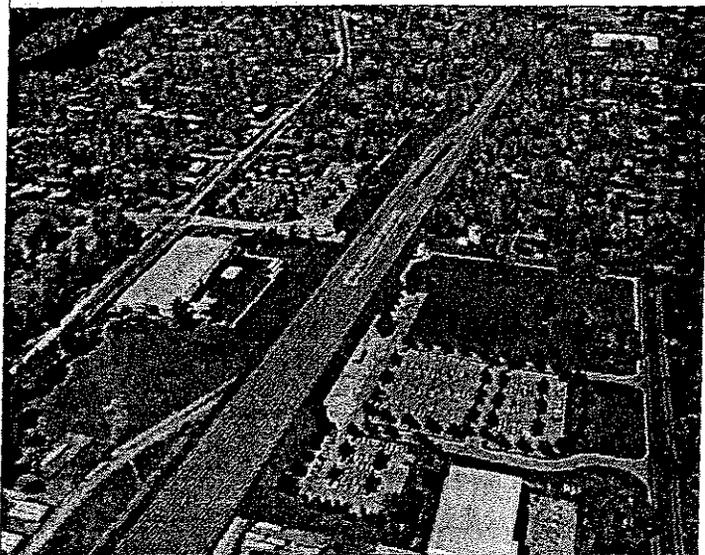
The region's new Hiawatha light rail line is referenced on the map; however, it is not reflected in the transportation costs models because the line was not in operation at the time of Census 2000.

### *B. Using the Affordability Index to Project the Effect of Transportation Costs on Three Hypothetical Households in Minneapolis-St Paul*

The Affordability Index allows one to consider the effect on a typical family's budget of a variety of housing choices. To demonstrate the effect of different housing location choices on a family's pocketbook, we constructed three hypothetical families and calculated how their spending distribution differs on the basis of where they live.<sup>6</sup>

#### **The Johnson Family**

- Three-person household living in Fridley
- Annual household income: \$56,690
- Annual housing costs: \$7,872
- Annual transportation costs: \$10,671
- Percentage of income spent on housing and transportation: 33 percent



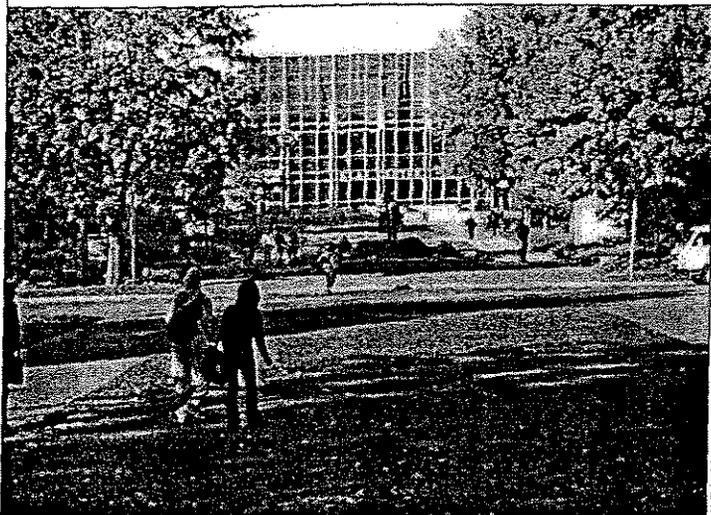
Chip Johnson is an insurance underwriter who lives in Fridley but works in downtown Minneapolis, earning \$56,690 per year. His wife, Bekah, is a stay-at-home mother taking care of their young son, Chip Jr.

For housing, the family pays \$7,872, or 14 percent of their income. Although they chose to live in Fridley because they could purchase "more home for the money," the Johnsons also needed to purchase a second car to maintain their mobility. Because they rely on two cars to commute to work and travel throughout town, their transportation spending equates to \$10,671 a year, five times the amount paid for health care, and double the amount spent on savings, pensions, and insurance. The Johnson family spends 62 percent of its expenditures on housing, transportation, food, apparel and services, and health care.

Photo: Aerial view depicting proposed new commuter rail line and station in Fridley. Source: Northstar Commuter Rail Project Office

### Sheila Washington

- Single college student renting apartment in St. Paul's Midway neighborhood
- Annual household income: \$16,830
- Annual housing costs: \$6,096
- Annual transportation costs: \$6,336
- Percentage of income spent on housing and transportation: 73 percent



Sheila Washington is a junior at Hamline University and works at the nearby Rosedale mall to help pay for college. After looking at surrounding neighborhoods, she chose an apartment in Midway where rents are cheaper. Nevertheless, a significant part of her monthly expenditures go to rent. She is able to walk to classes and could take the bus to her job, which pays her roughly \$17,000 annually, but instead she drives, preferring the flexibility that a car provides.

As with many college students, Sheila is acquiring debt and trying to find ways to reduce her cost of living. Together, housing and transportation are 73 percent of her expenditures, which she covers with student loans and her job at the mall. Although Sheila tried to save money by living in a more affordable area, she also lives in a more affordable transportation area but has yet to take advantage of these savings. Sheila could save \$400 per month by using the bus for work and selling her car. Average mortgages in the Midway neighborhood in 1999 were \$577, less than what Sheila spent on owning and driving a car and only slightly higher than what she now pays for rent.

Photo: Hamline University campus in St. Paul  
Source: Center for Transit Oriented Development

### The Dorgan Family

- Three- person household living in Farmington
- Annual household income: \$43,470
- Annual housing costs: \$9,732
- Annual transportation costs: \$13,020
- Percentage of income spent on housing and transportation: 52 percent



Jim Dorgan is a police officer in Minneapolis, but lives in Farmington with his two retired parents. He spends 94 percent of his \$43,470 annual income on all expenditures, including housing, transportation, and health care, with the largest cost being transportation, which totals over \$13,000 per year.

Jim puts up with a lengthy commute because of cheaper housing costs and a desire to help his aging parents, who rely on him. Together, housing and transportation costs compose 52 percent of his monthly expenditures. Given family responsibilities, Jim chooses to remain in Farmington to help his parents. Because it is difficult to take transit between Farmington and Minneapolis, or even within Farmington, the Dorgans are a three-car family.

Photo: Farmington neighborhood  
Source: Center for Transit Oriented Development

### C. Putting it All Together: The Impact of Housing Location Choice on Neighborhoods and Families in Minneapolis-St. Paul

We chose four neighborhoods in the Twin Cities to test the model's sensitivity to changes in density, housing costs, proximity to transit, and for the potential of the results to inform policy decisions on future potential transit lines. Tables 2 and 3 provide more information on each of these neighborhoods. Fridley is a northwestern suburb of Minneapolis that is being considered as a potential site for a station on the proposed new commuter rail line, the Northstar. Similarly, the Midway neighborhood in St. Paul encompasses the heart of the area being considered for a new light rail extension, and the Seward/Longfellow neighborhood currently adjoins the new Hiawatha light rail line. Farmington is a once-rural community that has seen rapid housing growth during the past decade as the metropolitan area continues to expand.

**Table 2. Background information on four Twin Cities neighborhoods: two city neighborhoods, one inner-ring suburb, one urban fringe**

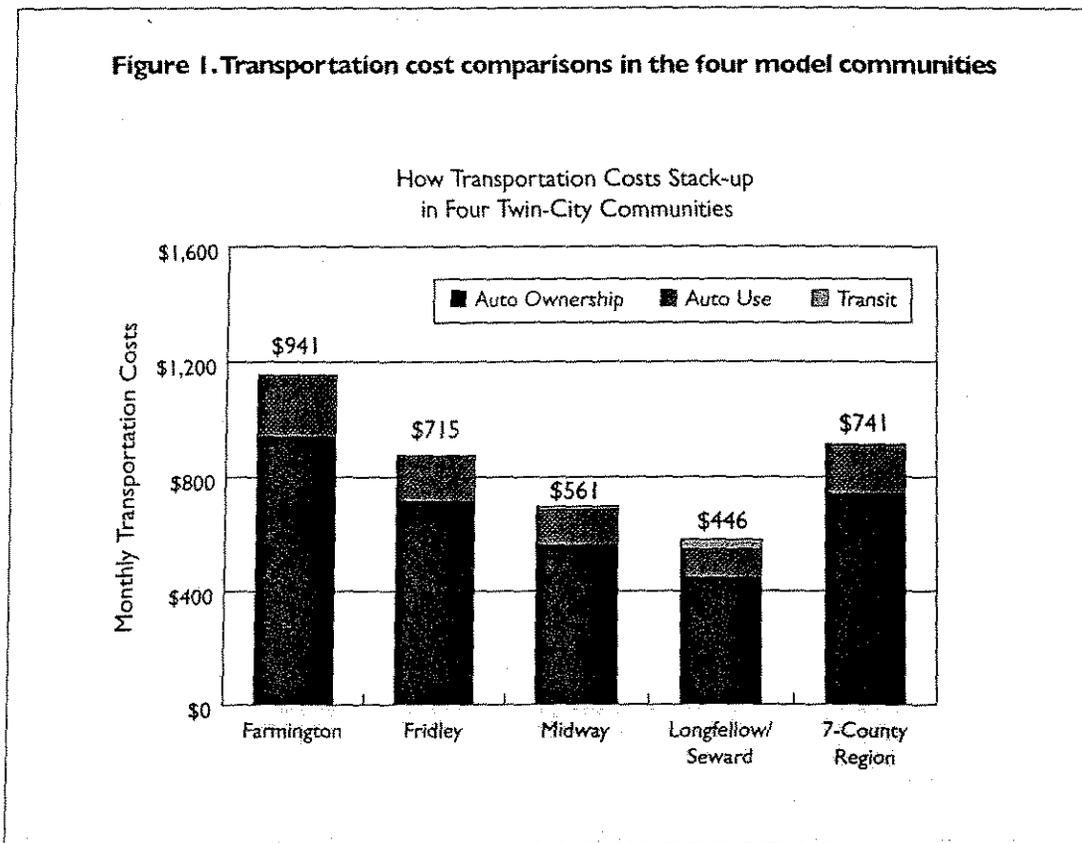
		Farmington	Fridley	Midway, St. Paul	Longfellow/ Seward, Minneapolis	Seven- County metro region
<b>Demographics</b>	Number of households <sup>1</sup>	4,686	11,328	4,861	6,006	1,021,454
	Avg. household size <sup>1</sup>	2.9	2.4	2.3	2.1	2.5
<b>Income factors</b>	Annual median household income <sup>1</sup>	\$43,443	\$59,196	\$39,601	\$32,909	\$54,304
	Household income range <sup>1</sup>	\$41,250– \$67,188	\$27,308– \$72,292	\$17,039– \$51,307	\$11,7120– \$46,923	
<b>Density measures</b>	Walkability <sup>1</sup>	79.3	13.8	5.1	5.7	17.1
	Avg. households/residential acre <sup>1</sup>	0.6	2.7	5.9	9.7	0.6
<b>Access to transit and jobs</b>	Jobs /sq. mi. <sup>2</sup>	6,209	35,004	72,748	99,060	12,651
	Percent commuting by transit, walking, or bicycling <sup>1</sup>	2%	5%	22%	26%	8%
	Transit Connectivity Index <sup>2</sup>	No Transit Access	Low	Medium	Medium	N/A
<b>Housing and transportation cost indicators</b>	Avg. vehicles per household <sup>1</sup>	2.1	1.8	1.4	1.2	1.9
	Avg. monthly mortgage payment <sup>3</sup>	\$811	\$649	\$577	\$597	\$893
	Avg. monthly rental payment <sup>1</sup>	\$535	\$627	\$509	\$497	\$657

<sup>1</sup> Census 2000. The seven-county average is a weighted average by county.

<sup>2</sup> Census Transportation Planning Package 2000 (CTPP 2000)

<sup>3</sup> Housing payments are based on Census 2000 data and HMDA Average Mortgage Payment for 1999 for the Minneapolis metropolitan statistical area (MSA) and loan terms and rates from the FFEIC for the Minneapolis MSA in 2000.

Figure 1. Transportation cost comparisons in the four model communities



As noted in Figure 1, transportation costs vary across the four case study neighborhoods. Increased costs in auto ownership reflect the need for more cars per household the further from the central city that a suburban community is located. The costs of driving increase in corresponding relationship. The absence or lack of transit service also indicates the relative cost of using transit between the study neighborhoods. As this information is averaged across all households living within the case study neighborhoods, for individual households there may be variation from the average based on individual transit or auto use.

Table 3 and the following four neighborhood summaries demonstrate the underlying transportation infrastructure of each neighborhood. Pie charts at the base of each neighborhood map show the effect on the household budgets of choosing to live in that neighborhood by each of the three hypothetical families. The four neighborhoods are highlighted in the previous regional maps to place these communities in their regional context.

**Table 3. Housing and transportation costs in the four Twin Cities areas**

	Farmington	Fridley	Midway, St. Paul	Longfellow/ Seward, Minneapolis	Seven- County metro region
Median income <sup>1</sup>	\$43,443	\$59,196	\$39,601	\$32,909	\$54,304
Annual transportation costs <sup>2</sup>	\$13,860	\$10,526	\$8,378	\$6,995	\$10,989
Transportation costs as a % of income <sup>2</sup>	32%	18%	21%	21%	20%
Average housing cost as a % of income <sup>3</sup>	22%	13%	17%	22%	20%
<b>Housing and transportation costs for homeowners</b>	<b>54%</b>	<b>31%</b>	<b>39%</b>	<b>43%</b>	<b>40%</b>
<b>Housing and transportation costs for renters</b>	<b>47%</b>	<b>30%</b>	<b>37%</b>	<b>39%</b>	<b>35%</b>

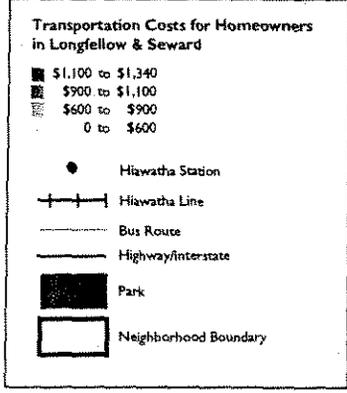
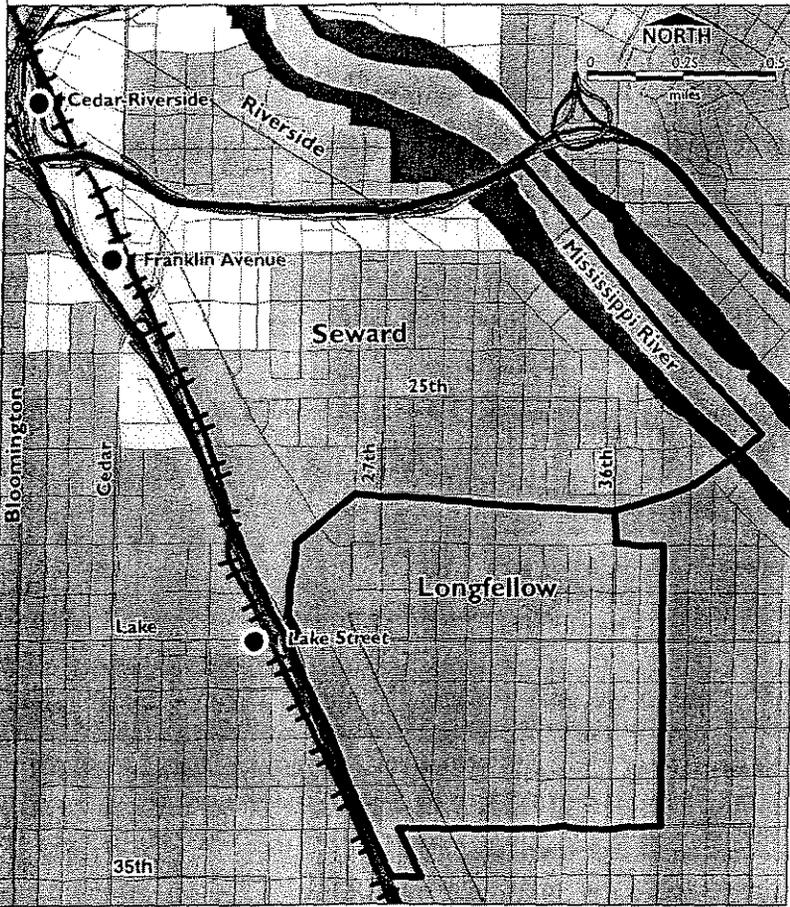
<sup>1</sup> Census 2000, median household income for each community by place and census tract

<sup>2</sup> Affordability Index model calculation for the median income household in each area

<sup>3</sup> Average of rental and mortgage payments for each area using Census 2000 median rents and 1999 HMDA loans and 1999 FFEIC loan terms and rates for Minneapolis-St. Paul to calculate mortgage payments

The four neighborhoods in focus represent different tradeoffs between housing cost and transportation cost. The residents of the Seward-Longfellow neighborhood are located close to downtown Minneapolis and well connected to mass transit. The median income is also lower in this neighborhood compared to our other study areas. On average, residents in this neighborhood spend 21 percent of their income on transportation or roughly \$446 per month. In comparison, for the average household in Farmington where transit service is extremely limited and commutes are long, transportation accounts for 32 percent of income or \$941 per month. When housing costs are factored in, affordability varies dramatically. Whereas regionally, the average two-person household spend 40 percent of its income on housing and transportation, if that same household lived in the Longfellow-Seward neighborhood they would be spending only 34 percent of their income on these same costs, a savings of over \$3,000 annually.

**Putting it All Together: Longfellow and Seward Neighborhoods in Minneapolis, Minnesota**



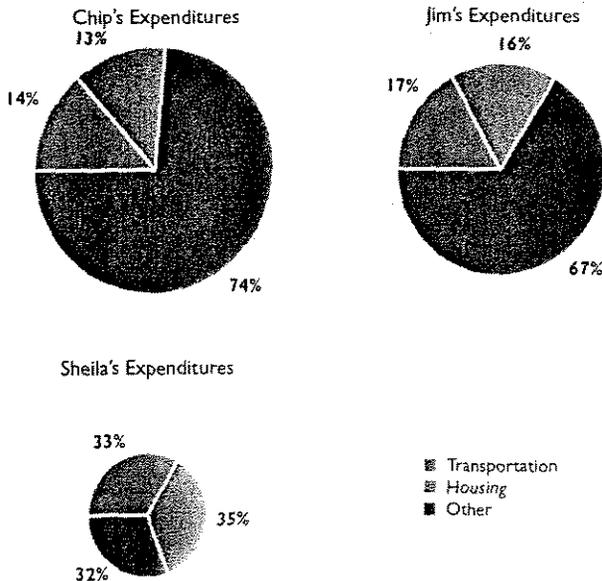
The Longfellow and Seward neighborhoods in South Minneapolis are some of the region's more densely settled, with a mix of housing, household types, and income levels. In addition to being densely populated, the neighborhoods also have a higher concentration of jobs relative to other places.

The Affordability Index is calculated using data prior to the existence of the Hiawatha mass transit line. It shows that 26 percent of households in this area were commuting by transit, walking, or biking in 2000, and overall households were saving \$4,000 a year on transportation compared with the regional average expenditures.

However, housing prices are also increasing in the corridor as a result of rising demand for living near transit and city-living in general. Average housing prices were 22 percent of median household income (\$33,209) in this area, slightly higher than the regional average but still below the industry standard of 30 percent. Combined, housing and transportation costs were 43 percent of the average household expenditures in Longfellow and Seward.

The Affordability Index does not include data to capture the neighborhood changes since 2000, but the model could be updated with current regional data on housing and transit to recalculate the affordability, such as the addition of the Hiawatha Line. The market changes resulting from the investment in fixed guideway transit have profound implications for affordable housing policies. Although the index helps to quantify the value of living near transit for households, it also illustrates neighborhood concerns over gentrification.

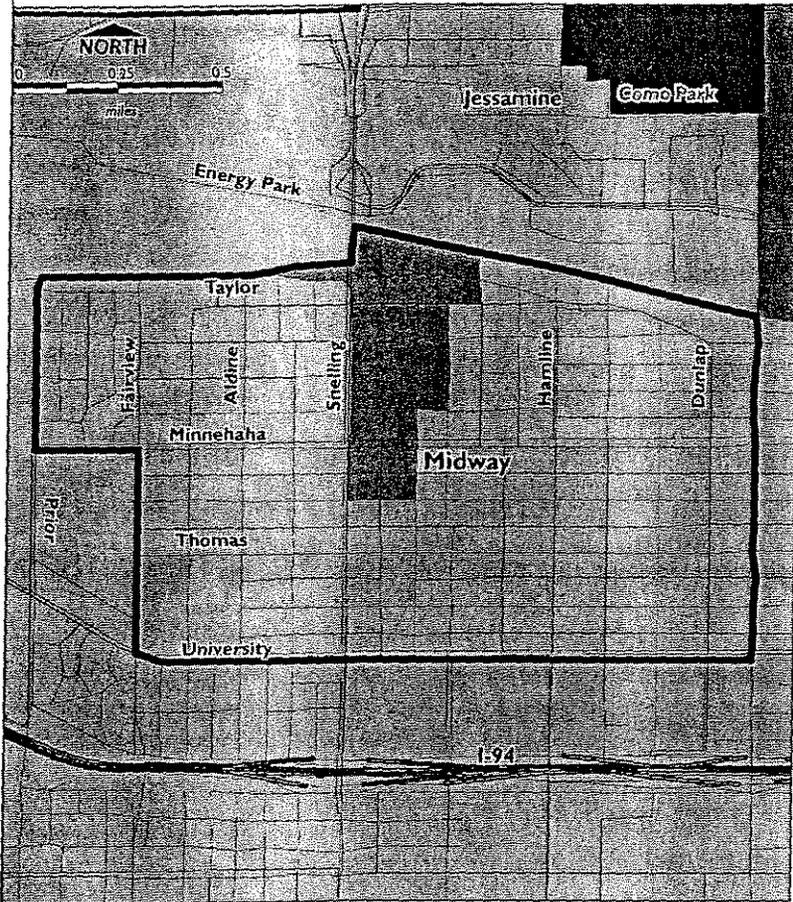
**Cost of living in Longfellow/Seward to hypothetical "case" families**



**The Cost of Living in Longfellow/Seward: Examining the Housing—Transportation Trade-Offs**

The pie charts depict the relative cost of living for our three hypothetical families. For Chip, Jim and Sheila, combined housing and transportation costs are lower in Longfellow/Seward than in the other profiled neighborhoods. Whereas Chip currently spends 33 percent of his income on these two costs to live in Fridley, were he to live in Longfellow they would account for only 26 percent of his annual income. For Sheila, transportation and housing costs would account for 68 percent of her income, and Jim would have a substantial savings from living closer to his Minneapolis job.

**Putting it All Together: Midway Neighborhood in St. Paul, Minnesota**

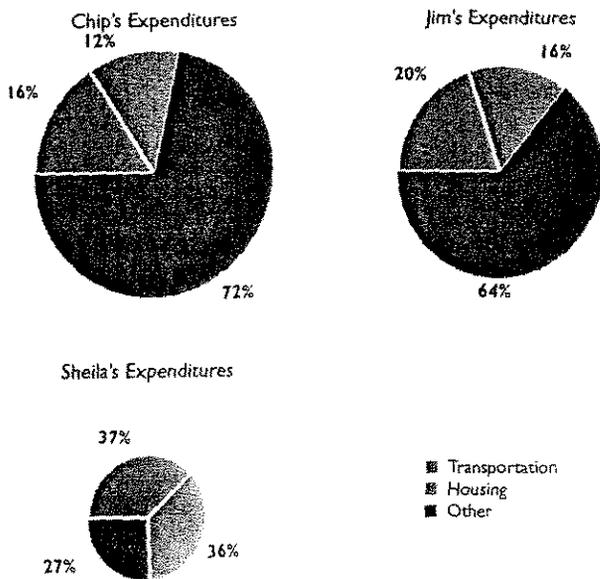


Midway is an older neighborhood in central St. Paul along University Avenue. The avenue has a variety of commercial activities and connects the University of Minnesota in Minneapolis with the State Capitol in St. Paul. Although less densely populated than Longfellow and Seward, it is still far above the regional average.

The households in the Midway area represent an extremely diverse population both economically and ethnically. The neighborhood is split evenly between family and non-family households, which can, in part, be attributed to the large number of colleges and universities in the area. Housing is more affordable in this area, and most of the housing stock was constructed prior to 1940. The average monthly mortgage payment in 2000 for this neighborhood was \$577, compared with \$893 for the seven-county region.

The Affordability Index calculated a monthly transportation cost of \$698, roughly 25 percent lower than the regional average. Given lower housing costs, the combined housing and transportation costs were 39 percent of annual household income for homeowners and 37 percent for renters.

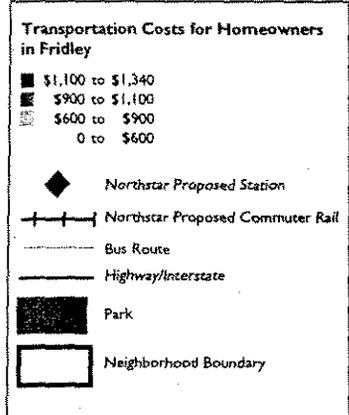
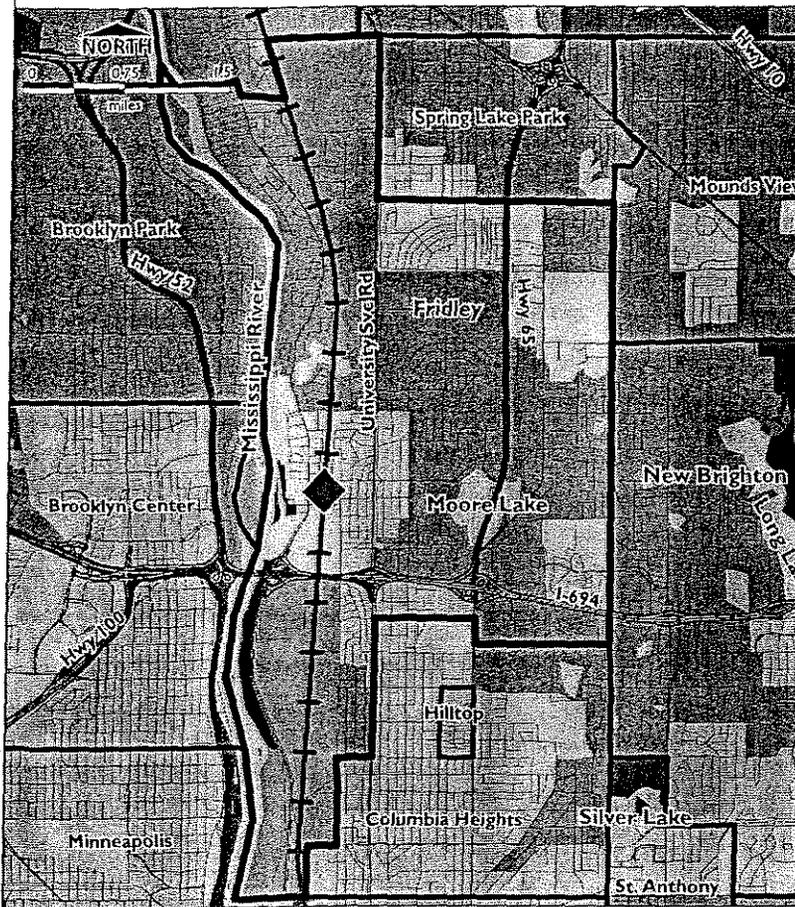
**Cost of living in Midway to hypothetical "case" families**



**The Cost of Living in Midway: Examining the Housing—Transportation Trade-Offs**

Focusing on the pie chart illustrating the cost of living for Sheila, a renter and college student earning less than 50 percent of the Seven-County region's median income (\$16,830 versus \$54,304), the varying costs of transportation and housing by neighborhood have a significant impact on her pocketbook. None of the neighborhoods analyzed are affordable meet the threshold of allowing Sheila to spend less than 47 percent of her income on these two costs. However, living in Midway allows her to have 26 percent of her income available for other uses, while the higher transportation costs of living in Fridley would allow her only 12 percent, and Farmington even less at 7 percent.

Putting it All Together: Fridley, Minnesota: Location of future commuter rail station

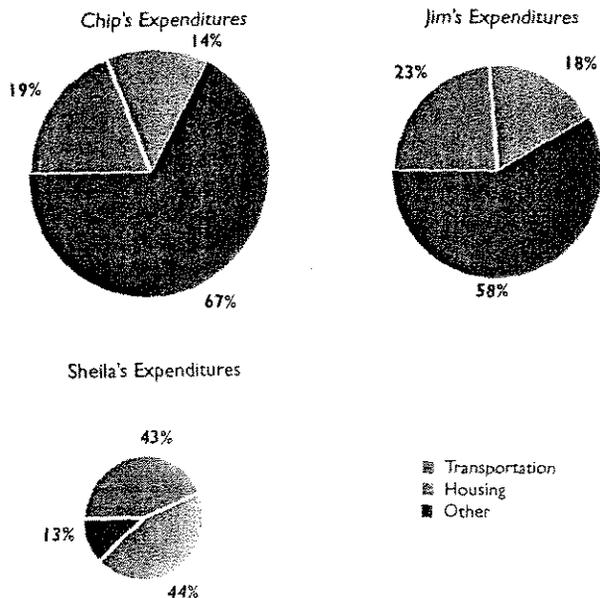


Fridley is an inner-ring suburban community with more than 27,000 residents. This suburban community is located to the northwest of Minneapolis and primarily accessible by Interstate 694. The median household income in 2000 was \$59,196, and the variation between income levels was not as marked as in the

three central city neighborhoods previously discussed. Although vehicle ownership is slightly below the regional average, only 5 percent of residents commute to work by transit, bicycling, or walking. Average commute time is relatively short at 22 minutes. As a consequence, average monthly transportation costs were \$877 in 2000, higher than the previous two study neighborhoods but still below the regional average.

Most of the housing in Fridley is owner-occupied, and the median house value in 2000 was \$120,000. As with other inner-ring suburbs, the community's population growth began in the 1950s and lasted through the early 1980s. It remains a fairly homogenous population in both income levels and racial backgrounds. Housing costs in 2000 accounted for only 13 percent of income, reflecting the higher average income levels in Fridley. When combined with transportation costs, however, the Affordability Index for Fridley rises to 31 percent of income spent on these two costs. Despite the lower housing costs, the higher transportation costs increase expenditures on these two items.

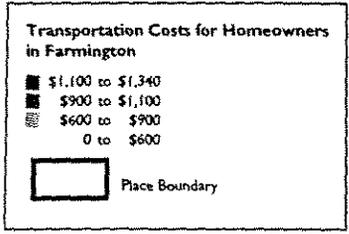
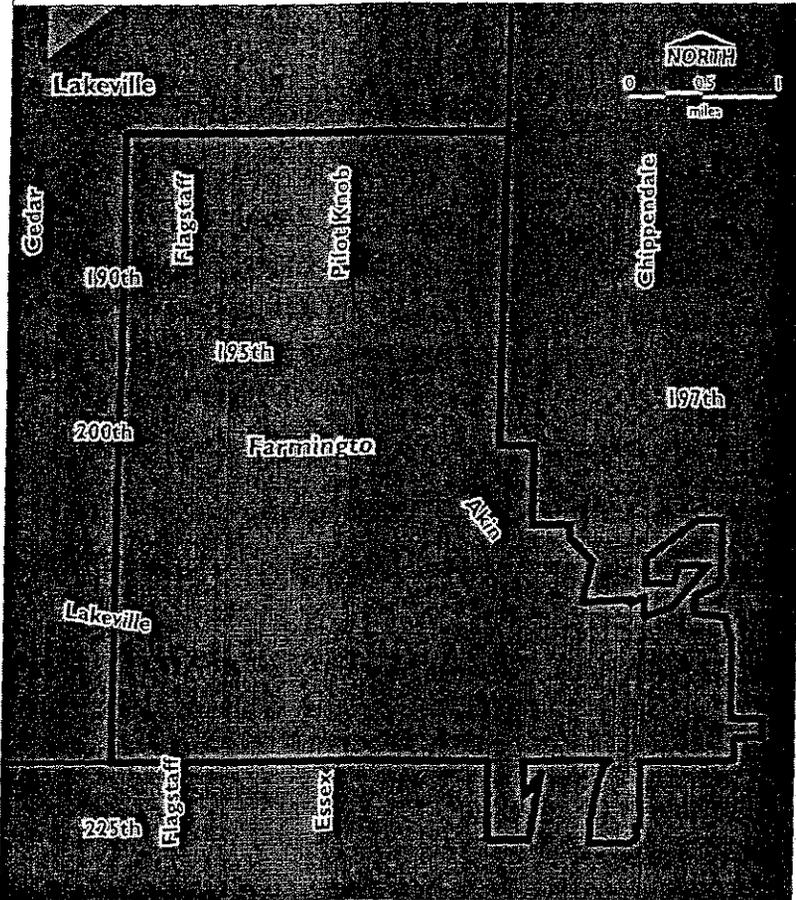
Cost of living in Fridley to hypothetical "case" families



**The Cost of living in Fridley: Examining the Housing—Transportation Trade-Offs**

For Chip Johnson and his family, Fridley is a relatively affordable community. The family spends less than 50 percent of their annual income on housing and transportation. Additional savings could potentially be realized if they lived in one of the urban neighborhoods examined. But for a 3-person family earning above the region's median income, most communities located near the Twin Cities are affordable. For Sheila, in comparison, affordability is greatly constrained in those neighborhoods outside the CBD as transportation costs rise substantially.

Putting it All Together: Farmington, Minnesota: Development on the suburban edge



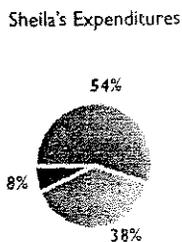
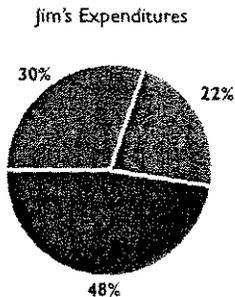
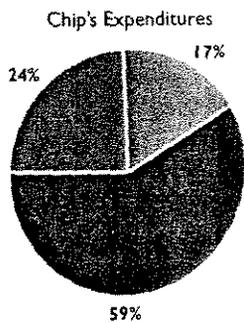
Twenty-five miles south of Minneapolis is the small but growing town of Farmington, population 12,365, and where 81 percent of the housing has been constructed since 1990. Census 2000 data report median housing value at \$146,000, slightly higher than the region's median of \$141,200, but the median household income was lower than the overall region's, \$43,443.

Although Farmington's housing is affordable for a household earning the median income or slightly higher, the Affordability Index shows the impact to the cost of living in a town where the average household owns at least two cars, there is no metro bus service, and the nearest large employment centers are two counties to the north. In Farmington, households spend 54.3% of their incomes for housing and transportation, the highest combined rate of our four study areas. Many of the households moving to Farmington for more affordable housing are likely instead taking on more expensive transportation.

The Cost of Living in Farmington: Examining the Housing—Transportation Trade-Offs

Tracking Jim Dorgan's relative costs of living in these different neighborhoods, we see that affordability varies greatly between communities when transportation and housing costs are combined. Whereas he spends over fifty percent of his income on these two costs in Farmington, were he to live in Fridley he would be spending only 40 percent on these same factors, and if he lived along the Hiawatha corridor in Longfellow/Seward he would have 67 percent of his income to spend on costs other than transportation or housing. Jim accepts the significantly higher transportation cost of living in Farmington (\$1085 per month versus \$574 per month in Seward/Longfellow), as a trade-off for lower cost housing in Farmington and proximity to his aging parents.

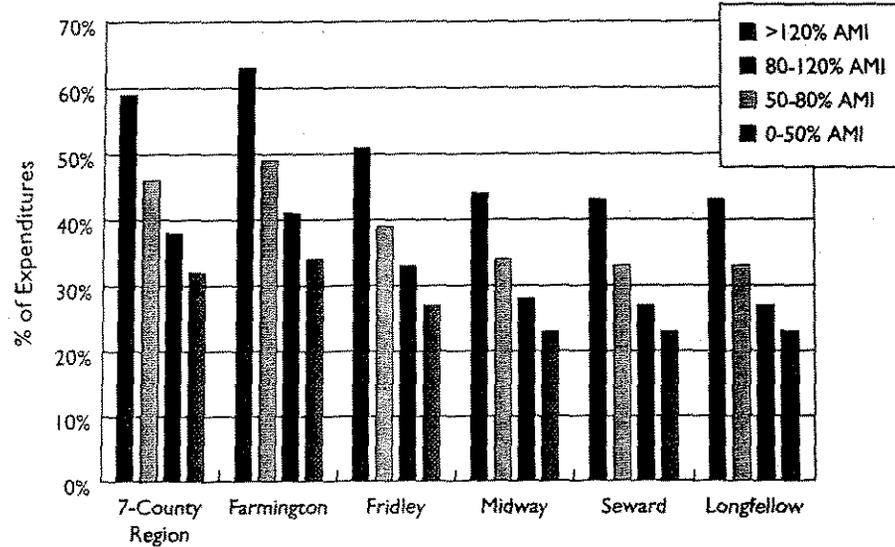
Cost of living in Farmington to hypothetical "case" families



■ Transportation  
 ■ Housing  
 ■ Other

Figure 2. Affordability by income level and community

Affordability Index in 4 Areas in Minneapolis-St. Paul



Moving beyond the hypothetical case families to understand the relative affordability of different neighborhoods in Minneapolis-St. Paul, we applied the index to households at various levels of area median income (AMI). Figure 2 shows the results of applying the Affordability Index to the four neighborhoods for households at less than 50 percent AMI, 50 to 80 percent AMI, 80 to 120 percent AMI, and greater than 120 percent AMI. Not surprisingly, affordability varies greatly by location and across income levels. When transportation costs are added to housing costs, which are high throughout the metropolitan region, only the central city neighborhoods are affordable to low-income families at less than 50 percent AMI. Proximity to better transit service in the central cities, access to more jobs, and the availability of some lower priced housing improves the overall cost of living for these households. For middle-income families, reduced transportation costs in these same communities also have a positive effect on the family pocketbook.

**Table 4. Potential Affordability Index policy applications for Minneapolis-St. Paul and other regions**

<b>Households</b>	Evaluate the true household budget impact of each neighborhood in a region to better determine the trade-offs in costs and lifestyle choices between different geographic locations
<b>Community and civic leaders</b>	<p>Incorporate cost-of-living benefits in campaigns for transit and reinvestment</p> <p>Inform policymakers of the connection between housing and transportation costs to advocate for policies that help retain affordable housing across income levels as part of a transit-oriented development strategy</p> <p>Advocate for including cost-of-living information in the Regional Framework Plan and for compliance with Livable Communities Act</p> <p>Educate households on the true cost of driving versus taking transit: do not just teach how to drive, but teach individuals what the costs are of driving</p>
<b>Transit agencies</b>	<p>Use broad transit benefits to support funding requests: transit is a great deal for public investment, for the household pocketbook, and for economic development</p> <p>Determine the impact of service cuts to the overall affordability of various communities</p> <p>Better measure the true value of investments in mass transit</p> <p>Make more effective decisions about routing, service enhancements, and station deployment</p>
<b>Realtors, lenders, investors, and developers</b>	<p>Provide complete information to buyers on the full costs and amenities associated with a location, adding these data elements to listings</p> <p>Make lending decisions based on total affordability of a place</p> <p>Screen investments for transportation choice and cost of living; focusing affordable housing projects near quality transit service</p> <p>Design housing and commercial products to complement and support transportation choice.</p> <p>Help find housing that fits within a family's budget.</p>
<b>Government agencies</b>	<p>Require alignment between and across government jurisdictions: state, Metropolitan Planning Organizations (MPO), counties, and cities on housing, transportation and land use decisions</p> <p>Incorporate cost-of-living criteria into state's housing and transportation plans</p> <p>Better inform MPOs required state transportation and housing plans, targeting future investments in those areas where transportation or housing costs are prohibitive</p> <p>Supplement The Department of Housing and Urban Development's (HUD) current measures of housing affordability to recognize that transportation costs are inextricably linked to housing costs</p>

#### IV. The Affordability Index: A Tool to Use Information to Drive Housing and Transportation Markets

The Affordability Index provides a useful tool for a variety of groups actively investing in and planning affordable and mixed-use developments. Overall, the index clearly suggests the need for improved coordination and planning between housing and transportation policies and investments. Considering both factors during decision making, families and public officials can make better decisions about the trade offs, overall costs of living, and cost of providing government services for different locations.

The Affordability Index can also inform to what degree transit investments can improve how affordable different communities are for households of varying income levels. It can also help affordable housing programs to give greater weight to investing in locations that will also reduce household transportation expenditures. Nationally, the number of households with housing cost burdens increased by nearly 5 million in just three years, despite stagnant rents and falling interest rates.<sup>7</sup> Individuals decide where to locate on the basis of more than just housing price and transportation cost. Neighborhood amenities, property size, quality of schools, and crime rates are all variables that influence their decision. However, data on those other variables are widely available, whereas little to no information has been made available to home buyers or renters about the relative transportation costs associated with different locations. The Affordability Index offers a more comprehensive picture of “affordability” to help individuals more fully evaluate a range of factors that are important to their cost of living.

For a household with limited financial resources, making a careful decision about where to locate involves assessing the value of their choices and weighing the relative costs. How much is it worth to have a private yard, be within walking distance of their child’s school, or to be close to a transit line? If having a large yard means moving to a community where it is necessary to have two or three cars, the results of this study indicate that extra car could cost at least an additional \$4,000 per year. Is it worth it? Maybe. But unless households know the transportation costs associated with their housing choice, they will not know the financial impact of their choice until it is too late.

The Affordability Index is a tool with utility far beyond high-level policy and planning applications. A family might purchase a house in the future from a real estate agent whose multiple listing service provides a link to the Affordability Index. In addition to data on school districts, property tax burden, parish and physical characteristics of the parcel, the family might also be provided with maps and aerial photos that show nearby green space, transit connections, and an Affordability Index ranking that depicts housing and transportation costs. A realtor could assist individuals in comparing their dream home along the transit rail line with one in a neighboring suburb. A more complete picture of costs and amenities would better inform the family of the trade-offs between a variety of amenities and cost savings. These cost savings translate into increased opportunities for wealth creation.

In summary, the Affordability Index could be used by a variety of actors, from the individual household to local, state, and federal officials. Table 4 highlights some of the policy applications for households, community leaders, transportation and housing professionals, and the financial community. Thinking more strategically about combining transportation and housing investments to leverage the connections between both can help to improve affordability and increase accessibility, which will drive healthier housing and transportation markets in cities.

## V. Housing Affordability Reconsidered

**T**he Affordability Index allows us to rethink the issue of true housing affordability. If all the participants in the housing market—developers and consumers, regulators, and politicians—began thinking differently about the affordability of place, it could have a substantial positive effect on households, neighborhoods, regions, and businesses.

People must make their own decisions about where they want to live, but it is important to provide them with the information they need to better understand the financial implications of those decisions. The Affordability Index makes clear that for a family, affordability goes beyond just “affordable housing,” and the costs of shelter. It allows us to demonstrate that in most cases, transit-rich environments have a positive effect on household disposable income. It illuminates the critical role of public investment in transportation and housing in supporting wealth-building strategies for low- to moderate-income families.

## Detailed Methods

The model theorizes that each transportation cost component—auto ownership, auto use, and public transit—is a function of the local environment ( $V_{le}$ ) of that place and household income and size ( $V_{hh}$ ). The simple equation is:

$$\text{Total Transportation Cost} = [C_{aO} * F_{aO}(V_{le}) * G_{aO}(V_{hh})] + [C_{aU} * F_{aU}(V_{le}) * G_{aU}(V_{hh})] + [C_{pt} * F_{pt}(V_{le}) * G_{pt}(V_{hh})]$$

where  $C$  represents a cost factor (i.e., dollars per mile driven), and  $F$  and  $G$  are generic functions of the local environment and the household variables.

By separating the urban variables from the household variables, we remove the correlation of wealth and family size with the characteristics of place to allow us to assign the intrinsic value of the efficiency of any given place, without confusing the cost of transportation with the characteristics of households residing there.

The three base transportation costs were each calibrated against existing measured data: average autos per household per block group (based on U.S. census data), vehicle miles traveled (VMT) (based on the national Household Travel Survey [NHTS]), and percent of journey to work trips by transit, and share of FTA transit revenue database. Block groups were used as the base geography of analysis given they are smaller in area than census tracts—yet detailed census data and other variables used in the analysis are still widely available.

Although this is a social science model and household behavior is impossible to precisely predict in every situation, we attempted to address as many variations as possible in auto ownership, auto use, or transit ridership through the design of the model and the selected data. The following items are key notes about transportation costs and how they are addressed in the model and data sources:

- Federal Highway Administration (FHWA) research shows that VMT per vehicle varies as the number of autos per household increases. Therefore, we adjust the model to assign the estimated miles per auto based on the NHTS results for multiple vehicles per household.
- The model is able to estimate transportation costs for renters and owners separately, because households in each tenure represent a different cohort both in household size and income. The rental and ownership housing markets are different, which affects location choices.
- The costs for auto ownership and use are from FHWA estimates from the 2001 editions of *The Complete Car Cost Guide and Complete Small Truck Guide* from Intellichoice, Inc., and sales figures from *Automotive News*. Auto ownership costs include depreciation, insurance, financing, and state fees. Auto use costs include fuel, maintenance, fuel tax, and repairs. The FHWA estimates the fixed annual ownership and use costs by the type and age of vehicle. We use a weighted average for the two costs on the basis of the existing fleet of U.S. vehicles, which results in \$5,068 for the ownership component and 9 cents per mile for the use component. Because these costs are averages, in some cases, the model will over- or underestimate the ownership, use, or total costs. For instance, the ownership costs will be too high for vehicles that are older, smaller, or less expensive than the average vehicle on the road, and the auto use costs may be too low for these same vehicles, especially if they require more maintenance or are less fuel efficient. The pricing model also does not account for variations in local economies or state regulations and how that might affect insurance rates, gasoline, and other auto costs.
- Other than the CTOD national database, there is no single current and complete national source for all bus and rail lines in the United States. We made our best attempt to gather this data for each of the 28 major U.S. metropolitan areas; however, several cities have no data or Geographic Information Systems (GIS) files for their bus systems. For the Minneapolis-St. Paul area, we obtained complete and current information on the bus routes and frequencies from the Met Council, but the Transit Connectivity in our model does not include bus stop locations.
- Lacking a source for exact information on the number of trips taken and distance to work and all other destinations by households at the census block group level, we instead used the National Household Travel Survey (NHTS) to estimate the total vehicle miles driven per household on the basis of the census block group characteristics of the households in the survey. We were able to identify the actual block group for approximately 6,840 survey records in the NHTS dataset and used these records to determine the relation between the characteristics of those block groups and the annual miles per vehicle reported by the households in the block groups. We then assign annual miles to households in each block group on the basis of the characteristics of that block group.
- To account for access to jobs and services, which influence a household's transportation demand, we developed a method to identify employment centers both in size and location. We assigned the number of jobs within each census tract using the CTPP 2000. This allowed us to identify and group those census tracts that were adjacent to each other and had a high employment density as major employment centers. The distance from each block group to the closest employment center is then used as an independent variable in the model.

Table 1. Independent and dependent variables in the transportation cost model

Independent variable	Source	Purpose
Households per residential acre	Census 2000	Provides a measure of density, which influences auto ownership and use
Households per total acre	Census 2000	Provides a measure of density, which influences auto ownership and use
Average block size in acres	Census/TIGER/Line®	Block size contributes to walkability of the area, which influences auto ownership, auto use, and transit use
Transit Connectivity Index*	CTOD national database: FTA 1995 bus routes database, local transit agencies	Availability and extent of transit influences transit use
Distance to employment centers	Census Transportation Planning Package (CTPP) 2000	Distance to nearby jobs influences auto ownership and auto use
Job density: number of jobs per square mile	Jobs and locations, CTPP 2000	Number of nearby jobs influences probability of working at the nearby employment center
Access to amenities	Service jobs in the CTPP 2000	Nearby services within walking distance influences auto use and ownership, as well as transit availability and use
Household income	Census 2000	Influences auto ownership and use
Household size	Census 2000	Influences auto ownership and use
Dependent variable	Source	Use
Auto ownership (vehicles per household)	Modeled from independent household and local environment variables	To determine the number of autos a household owns and the associated ownership costs
Auto use (annual miles driven per household)	Modeled using the 2001 NHTS reported VMT fitted to the independent variables	To determine the number of miles a household drives each vehicle and the associated usage costs
Transit Rides per day	Modeled from independent household and local environment variables	To determine the number of transit rides per day per household.

\*The Transit Connectivity Index (TCI) is a measure developed by Center for Neighborhood Technology using bus and train system route and service data to estimate the quality of transit in proximity to a census tract by measuring the frequency and location of the bus and train routes and train stations. Bus stops are not currently part of the TCI owing to the lack of readily available and consistent data at the national level. A high TCI score represents frequent and extensive transit in relation to other locations within that region. The categories in Minneapolis are >0-600 Low, 600-2700 Medium, and >2700 High.

## Endnotes

1. Creating the model relies on complete data sets for a particular area; the model can be created in any city with data on the transit routes and their service frequencies.
2. Several researchers have shown the relation between the built environment and transportation use and costs, including the following studies. Scott Bernstein, Carrie Makarewicz, and Kevin McCarty, "Driven to Spend: Pumping Dollars Out of Our Households and Communities" (Washington: Center for Neighborhood Technology and Surface Transportation Policy Project, 2005). See <http://www.transact.org>. John C. Dernbach and Scott Bernstein, "Pursuing Sustainable Communities: Looking Back, Looking Forward," *Urban Lawyer* 35 (495) (Summer 2003). John Holtzclaw, Robert Clear, Hank Dittmar, David Goldstein, and Peter Haas, "Location Efficiency: Neighborhood and Socio-Economic Characteristics Determine Auto Ownership and Use—Studies in Chicago, Los Angeles, and San Francisco," *Transportation Planning and Technology* 25(1) (2002): 1-27, available online at [www.tandf.co.uk/journals/online/0308-1060.html](http://www.tandf.co.uk/journals/online/0308-1060.html). John Holtzclaw, "Using Residential Patterns and Transit to Decrease Auto Dependence and Costs," *Journal of the Transportation Research Board Record* 1805 (2002): D. B. Hess and P. M. Ong, "Traditional Neighborhoods and Automobile Ownership," *Journal of the Transportation Research Board Record* 1805 (2002): 35-44. *Natural Resources Defense Council, San Francisco, and California Home Energy Efficiency Rating Systems*, Costa Mesa, California, 1994. Peter Newman and Jeffrey Kenworthy, *Cities and Automobile Dependence: An International Sourcebook* (Aldershot, UK: Gower Publishing, 1989). Gary Pivo, Paul Hess, and Abhay Thatte, "Land Use Trends Affecting Auto Dependence in Washington's Metropolitan Areas, 1970-1990" (WA-RD 380.1) (Olympia: Washington State Department of Transportation, 1995). Charles Komanoff, "Public Transit: The Vision for 2020" (Chicago: Center for Neighborhood Technology, 1990).
3. Walkability is measured in the Affordability Index model by the average census block size. Block sizes are measured by the Census in acres. Smaller block sizes are an indication of streets on a grid that likely have sidewalks and where housing, amenities, and other locations are within easy walking distance of each other because there is a greater network of streets and intersections and therefore more options for traveling between destinations on foot.
4. Holtzclaw et al. "Location Efficiency."
5. For a complete description of the model's development and methodology, see the Reconnecting America website, [www.reconnectingamerica.org](http://www.reconnectingamerica.org).
6. For the sample households, wage levels and occupations are based on the wages and occupations cited in "Pay-check to Paycheck," (Washington: Center for Housing Policy, 2001), and Bureau of Labor Statistics median wages for Minneapolis-St. Paul metropolitan statistical area (MSA), 2003. Household total and component expenditures, except for housing and transportation, which are based on the CTOD Affordability Index model calculations, are based on average expenditures for households of these income levels and sizes reported in 2001 Consumer Expenditure Survey of the Bureau of Labor Statistics.
7. Lipman, Barbara, "Something's Gotta Give: Working Families and the Cost of Housing", *New Century Housing*, Volume 5, Issue 2. Center for Housing Policy, p. 10

### **Acknowledgments**

To develop and pilot the measure, Reconnecting America's Center for Transit-Oriented Development (CTOD)—with generous grants from The Brookings Institution's Urban Markets Initiative, the McKnight Foundation, and Surdna Foundation—used the Minneapolis-St. Paul region as a prototype to refine our methodology and calibrate the Affordability Index. The pilot model for Minneapolis-St. Paul was reviewed by a group of local stakeholders, academics, and planning professionals in August and September 2005. After reviewing the model in the region and with national advisors from the housing, transportation, finance, and business communities, the CTOD adjusted the model and will apply the methodology developed in the Twin Cities to an existing national data set of the 27 other major U.S. cities. The expected timeframe for the national model is early 2006.

Shelley Poticha, of Reconnecting America, and Peter Haas, Ph.D., of the Center for Neighborhood Technology, co-directed the project team. Principle staff included Albert Benedict, Scott Bernstein, and Carrie Makarewicz of the Center for Neighborhood Technology; Maria Zimmerman of Reconnecting America; and Pari Sabety and Brian Nagendra at The Brookings Institution's Urban Market Initiatives program.

### **For More Information**

The Housing and Transportation Affordability Index is designed for use in more than 42 cities in the United States.

See [www.brookings.edu/metro/umi.htm](http://www.brookings.edu/metro/umi.htm) or [www.cnt.org](http://www.cnt.org) or [www.reconnectingamerica.org](http://www.reconnectingamerica.org).

*Living Cities: The National Community Development Initiative* is the founding funder for the Urban Markets Initiative. Living Cities is a partnership of leading foundations, financial institutions, nonprofit organizations, and the federal government committed to improving the vitality of cities and urban communities.



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The Urban Markets Initiative (UMI) at the Brookings Institution Metropolitan Policy Program aims to improve the quality of the information available on urban communities and use it to *unleash the full power of those markets while connecting them to the economic mainstream.*

UMI market innovation briefs describe groundbreaking ways in which communities are developing tools or using information to drive urban markets. Learn more about these projects and the Urban Markets Initiative at [www.brookings.edu/metro/umi/pilotprojects.htm](http://www.brookings.edu/metro/umi/pilotprojects.htm)



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A BILL FOR AN ORDINANCE

TO AMEND CHAPTER 21, REVISED ORDINANCES OF HONOLULU 1990, AS AMENDED (THE LAND USE ORDINANCE), RELATING TO TRANSIT-ORIENTED MULTI-FAMILY DWELLINGS.

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. **Purpose.** The purpose of this ordinance is to facilitate the integration of transit services with certain new developments on Oahu. This is to make housing choices more affordable, encourage utilization of the city's mass transportation system, and protect open space.

SECTION 2. Chapter 21, Article 5, Revised Ordinances of Honolulu 1990, as amended, is amended by adding a new section to be designated by the revisor of ordinances and to read as follows:

**"Sec. 21-5. Transit-oriented multi-family dwellings.**

Within AMX-1, AMX-2, AMX-3, BMX-3, and BMX-4 districts, multi-family dwellings shall be deemed to be transit-oriented multi-family dwellings when they are located within one quarter mile of a major transit route. Major transit routes shall be designated by the director of transportation services by rules adopted pursuant to HRS Chapter 91 and represent permanent links with the highest levels of service in the city's public transit system wherein large numbers of passengers are carried and public transit vehicles operate at peak hour headways of 20 minutes or less."

SECTION 3. Table 21-6.1, Revised Ordinances of Honolulu 1990, as amended, is amended to read as follows:



**A BILL FOR AN ORDINANCE**

"Table 21-6.1 Off-street Parking Requirements	
Use <sup>1</sup>	Requirement <sup>2</sup>
<b>AGRICULTURE</b>	
Agricultural products processing (major or minor); animal products processing; centralized bulk collection, storage and distribution of agricultural products to wholesale and retail markets; sale and service of machinery used in agricultural production; sawmills; and storage and sale of seed, feed, fertilizer and other products essential to agricultural production.	1 per 1,500 square feet
<b>ANIMALS</b>	
Kennels, commercial	1 per 400 square feet, but no less than 4
<b>COMMERCE AND BUSINESS</b>	
Automotive and boat parts and services, but not storage and repair; automobile and boat sales and rentals; catering establishments; dance or music schools; financial institutions; home improvement centers; laboratories (medical or research); medical clinics; offices, other than herein specified; personal services; photographic processing; photography studios; plant nurseries; retail establishments other than herein specified; and veterinary establishments	1 per 400 square feet
Bowling alleys	3 per alley
Business services	1 per 500 square feet



**A BILL FOR AN ORDINANCE**

Use <sup>1</sup>	Requirement <sup>2</sup>
Convenience stores; and sales: food and grocery stores (including neighborhood grocery stores)	1 per 300 square feet
Data processing facilities	1 per 800 square feet
Drive-thru facilities (window or machine)	5 stacking spaces
Eating and drinking establishments (including bars, nightclubs, taverns, cabarets, and dance halls)	1 per 300 square feet, provided the total floor area of all eating and drinking establishments comprises 50 percent or more of the floor area developed on the zoning lot. Otherwise, 1 per 400 square feet, including outdoor dining areas.
Laundromats, cleaners: coin operated	1 per 2 washing machines
Sales: appliance, household and office furniture; machinery; and plumbing and heating supply	1 per 900 square feet
Self-storage facilities	1 per 2,000 square feet
Shopping centers <sup>3</sup>	1 per 300 square feet
Skating rinks	1 for each 4 skaters of the rink's maximum capacity or 1 per 1,500 square feet of skating surface, whichever is greater.
<b>DWELLINGS AND LODGINGS</b>	
Boarding facilities	2 plus 0.75 per unit
Consulates	1 per dwelling or lodging unit, plus 1 per 400 square feet of office floor area, but not less than 5
Dwellings, detached, duplex and farm	2 per unit plus 1 per 1,000 square feet over 2,500 square feet (excluding carport or garage)



**A BILL FOR AN ORDINANCE**

Use <sup>1</sup>	Requirement <sup>2</sup>	
Dwellings, multifamily, <u>except transit-oriented multi-family</u>	<b>Floor Area of Dwelling or Lodging Units</b>	<b>Required Parking per Unit</b>
	600 sq. ft. or less	1
	More than 600 but less than 800 sq. ft.	1.5
	800 sq. ft. and over	2
	Plus 1 guest parking stall per 10 units for all projects	
Dwellings, transit-oriented multi-family	<b>Floor Area of Dwelling or Lodging Units</b>	<b>Required Parking per Unit</b>
	600 sq. ft. or less	1
	More than 600 but less than 800 sq. ft.	1
	800 sq. ft. and over	1
Hotels: dwelling units	1 per unit	
Hotels: lodging units; and lodging units	0.75 per unit	
<b>INDUSTRIAL</b>		
Food manufacturing and processing; freight movers; heavy equipment sales and rentals; linen suppliers; manufacturing, processing and packaging (light or general); maritime-related sales, construction, maintenance and repairing; motion picture and television studios; petroleum processing; port facilities; publishing plants for newspapers, books and magazines; salvage, scrap and junk storage and processing; storage yards; warehousing; waste disposal and processing; and wholesale and retail establishments dealing primarily in bulk materials delivered by or to ship, or by ship and truck in combination	1 per 1,500 square feet	
Repair establishments, major	1 per 300 square feet	



**A BILL FOR AN ORDINANCE**

Use <sup>1</sup>	Requirement <sup>2</sup>
Repair establishments, minor	1 per 500 square feet
Wholesaling and distribution	1 per 1,000 square feet
<b>OUTDOOR RECREATION</b>	
Boat launching ramps	10 per launching ramp
Golf driving ranges	2 per tee stall
Marinas	1 per 2 moorage stalls
Recreation facilities, outdoor and indoor, involving swimming pools and sports played on courts	1 per 200 square feet, plus 3 per court, e.g., racquetball, tennis or similar
<b>SOCIAL AND CIVIC SERVICE</b>	
Art galleries, museums and libraries	1 per 400 square feet
Auditoriums, funeral homes/mortuaries, meeting facilities, sports arenas, and theaters	1 per 75 square feet of assembly area or 1 per 5 fixed seats, whichever is greater
Day-care facilities	1 for each 10 care recipients of design capacity
Schools: elementary and intermediate	1 for each 20 students of design capacity, plus 1 per 400 square feet of office floor space
Schools: high, language, vocational, business, technical, and trade; business colleges	1 for each 10 students of design capacity, plus 1 per 400 square feet of office floor space
<b>TRANSPORTATION AND PARKING</b>	
Automobile service stations	3 per repair stall
Car washing, mechanized	10 standing spaces for waiting vehicles for each car wash rack



**A BILL FOR AN ORDINANCE**

Use <sup>1</sup>	Requirement <sup>2</sup>
UTILITIES AND COMMUNICATIONS	
Broadcasting stations	1 per 400 square feet
<p><b>PARKING TO BE DETERMINED BY THE DIRECTOR</b></p> <p><b>Agriculture</b> - aquaculture; composting (major or minor); crop production; forestry; and roadside stands.</p> <p><b>Animals</b> - game preserves; livestock grazing; livestock production (major or minor); livestock veterinary services; and zoos.</p> <p><b>Commerce and business</b> - amusement and recreation facilities, indoor and outdoor; home occupations; plant nurseries; and trade or convention centers.</p> <p><b>Dwellings and lodgings</b> - group living facilities.</p> <p><b>Industrial</b> - base yards; explosive and toxic chemical manufacturing, storage and distribution; and resource extraction.</p> <p><b>Outdoor recreation</b> - amusement facilities, outdoor (motorized and not motorized); botanical gardens; golf courses; recreation facilities, outdoor and indoor, other than as herein specified; and marina facilities.</p> <p><b>Social and civic service</b> - cemeteries and columbaria; hospitals; prisons; public uses and structures; universities and colleges.</p> <p><b>Transportation and parking</b> - airports; heliports; helistops; and truck terminals.</p> <p><b>Utilities and communications</b> - broadcasting antennas; receive-only antennas; utility installations (Type A or B); and wind machines.</p> <p><b>Miscellaneous</b> - All other uses not herein specified</p>	As determined by the director

Notes:

1. Where a proposed use is not specifically listed above, or it falls under more than one use listed above, the director will review the proposed use and, based on the characteristics of the use, determine its equivalent and applicable off-street parking and loading requirements.
2. All references to square feet refer to floor area.
3. Parking standards for individual uses shall prevail if they are not part of a commercial use that meets the definition of "shopping center."



CITY COUNCIL  
CITY AND COUNTY OF HONOLULU  
HONOLULU, HAWAII

ORDINANCE \_\_\_\_\_

BILL \_\_\_\_\_ (2008)

A BILL FOR AN ORDINANCE

SECTION 4. New ordinance material is underscored. When revising, compiling, or printing this ordinance for inclusion in the Revised Ordinances of Honolulu, the revisor of ordinances need not include the underscoring.

SECTION 5. This ordinance shall take effect upon its approval.

INTRODUCED BY:

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DATE OF INTRODUCTION:

\_\_\_\_\_  
Honolulu, Hawaii

\_\_\_\_\_  
Councilmembers

APPROVED AS TO FORM AND LEGALITY:

\_\_\_\_\_  
Deputy Corporation Counsel

APPROVED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
MUFU HANNEMANN, Mayor  
City and County of Honolulu



A BILL FOR AN ORDINANCE

RELATING TO PARKING.

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. Purpose. The purpose of this ordinance is to encourage the use of transit centers. Specifically, this ordinance encourages such usage by reducing the off-street parking requirements for zoning lots in business and business mixed use districts that are located within one quarter mile of a transit center.

SECTION 2. Section 21-6.30, Revised Ordinances of Honolulu 1990 is amended to read as follows:

**"Sec. 21-6.30 Method of determining number.**

- (a) To determine the required number of off-street parking spaces, floor area shall be as defined in Article 10 of this chapter, except that for the purposes of this section, basement floor area shall be included as floor area for parking purposes when it is devoted to uses having a parking requirement specified in Tables 21-6.1, 21-6.2 and 21-6.3.
- (b) When computation of the total required parking spaces for a zoning lot results in a fractional number with a major fraction (i.e., 0.5 or greater), the number of spaces required shall be the next highest whole number.
- (c) In stadiums, sports arenas, meeting facilities, and other places of assembly in which patrons or spectators occupy benches, pews or other similar seating facilities, each 24 inches of width shall be counted as a seat for the purpose of determining requirements for off-street parking.
- (d) All required parking spaces shall be standard-sized parking spaces, except that duplex units, detached dwellings and multifamily dwellings may have up to 50 percent compact spaces.
- (e) All spaces, other than for one- and two-family dwellings, shall be individually marked if more than four spaces are required. Compact spaces shall be labeled "compact only."
- (f) When a building or premises include uses incidental or accessory to a principal use, the total number of spaces shall be determined on the basis of the parking requirements of the principal use(s).



A BILL FOR AN ORDINANCE

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- (g) Parking requirements for conversion or development of hotels to condominium ownership other than in the resort district shall be as follows:
  - (1) One parking space per dwelling unit or lodging unit.
  - (2) One parking space per 800 square feet for any accessory uses.
  - (3) This subsection shall not apply so long as the structure continues in hotel use.
  
- (h) For zoning lots in the business and business mixed use zoning districts, when an entire zoning lot is located within one quarter mile of a transit center, the off-street parking requirements as determined by Tables 21-6.1 and 21-6.2 shall be reduced by 50 percent.

SECTION 3. Section 21-10.1, Revised Ordinances of Honolulu 1990 ("Definitions"), is amended by adding a new definition of "Transit center" to read as follows:

"Transit center" means a bus stop facility designated by the department of transportation services as a transit center. A transit center is a facility that functions as a hub location for circulator, express or local bus service routes."

SECTION 4. Ordinance material to be repealed is bracketed. New material is underscored. When revising, compiling or printing this ordinance for inclusion in the Revised Ordinances of Honolulu, the revisor of ordinances need not include the brackets, the bracketed materials, or the underscoring.



A BILL FOR AN ORDINANCE

SECTION 5. This ordinance shall take effect upon its approval.

INTRODUCED BY:

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DATE OF INTRODUCTION:

\_\_\_\_\_  
Honolulu, Hawaii

\_\_\_\_\_  
Councilmembers

APPROVED AS TO FORM AND LEGALITY:

\_\_\_\_\_  
Deputy Corporation Counsel

APPROVED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
MUFU HANNEMANN, Mayor  
City and County of Honolulu

(OCS/012105/ct)



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A BILL FOR AN ORDINANCE

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RELATING TO PERMITTING HOTELS NEAR TRANSIT CENTERS.

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. The purpose of this ordinance is to amend the Land Use Ordinance to permit the development of hotels near major transit centers.

SECTION 2. Table 21-3, Revised Ordinances of Honolulu 1990, as amended ("Master Use Table"), is amended by amending the "Dwellings and Lodgings" category to read as follows:





**A BILL FOR AN ORDINANCE**

SECTION 3. Section 21-5.360, Revised Ordinances of Honolulu 1990, as amended, is amended to read as follows:

**"Sec. 21-5.360 Hotels.**

(a) [Hotels] Except as otherwise permitted in subsection (b), hotels shall be permitted in the I-2 intensive industrial district and IMX-1 industrial-commercial mixed use district provided:

[(a)](1) They are within one-half mile by the usual and customary route of vehicular travel from the principal entrance of an airport utilized by commercial airlines, having regularly scheduled flights. For Honolulu International Airport, the principal entrance shall be the intersection of Paiea Street and Nimitz Highway.

[(b)](2) They have frontage on a major or secondary street or highway.

[(c)](3) They have a minimum lot area of 15,000 square feet and minimum lot width of 70 feet.

[(d)](4) The maximum floor area ratio shall be 2.0.

[(e)](5) Parking requirements of at least one space per two lodging or dwelling units shall be provided.

[(f)](6) Front yards shall have a minimum depth of 10 feet, and except for necessary driveways, shall be maintained in landscaping.

[(g)](7) Signs shall conform to the sign [requirements] regulations applicable within the B-2 community business district [regulations].

(b) Hotels shall be permitted in the B-2 community business district, BMX-3 community business mixed use district, I-1 limited industrial district, I-2 intensive industrial district, and IMX-1 industrial-commercial mixed use district provided:

(1) They are within one mile of a major transit center.

(2) Parking requirements of at least one space per two lodging or dwelling units shall be provided.



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A BILL FOR AN ORDINANCE

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- (3) Signs shall conform to the sign requirements applicable within the B-2 community business district regulations.

SECTION 4. Section 21-10.1, Revised Ordinances of Honolulu 1990, as amended, is amended by adding a new definition of "Major Transit Center" to read as follows:

"Major transit center" means a facility so designated by the department of transportation services that functions as a principal hub for the city's public transit system, whether service is by bus, rail, or ferry."

SECTION 5. Ordinance material to be repealed is bracketed. New material is underscored. When revising, compiling or printing this ordinance for inclusion in the Revised Ordinances of Honolulu, the revisor of ordinances need not include the brackets, the bracketed material or the underscoring.



A BILL FOR AN ORDINANCE

SECTION 6. This ordinance shall take effect upon its approval.

INTRODUCED BY:

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\_\_\_\_\_  
\_\_\_\_\_

DATE OF INTRODUCTION:

\_\_\_\_\_  
Honolulu, Hawaii

\_\_\_\_\_  
Councilmembers

APPROVED AS TO FORM AND LEGALITY:

\_\_\_\_\_  
Deputy Corporation Counsel

APPROVED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
MUFI HANNEMANN, Mayor  
City and County of Honolulu