Resources to Help Advance
Transit Oriented Development Projects
in Alameda County, California
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Introduction

To help minimize the effects of future traffic congestion, Alameda County Congestion Management Agency (CMA) has made a commitment to encourage new development to focus around transit hubs and corridors. Through a Transportation and Land Use (or T Plus) Program, funded by the Metropolitan Transportation Commission (MTC), Alameda County CMA provides funding and services to Transit Oriented Developments (TODs) throughout the county to strengthen the land use and transportation connection. As part of this effort, this TOD Resource Guide provides information to help TOD project sponsors resolve issues that have been raised at TODs in Alameda County: funding, parking, stormwater, hazardous materials and policy and design.

What is TOD?

Transit-Oriented Development (TOD) is residential or mixed-use development designed and located to make transit use as attractive and convenient as possible. Mixed land use at the home end of a work commute includes high density housing with neighborhood serving retail, while the work end of the commute includes a large employment center. By providing easy and convenient transportation choices at a TOD—such as bicycle and walk access and transit connections to a train, bus or ferry hub—TODs increase the share of trips that can be made by transportation modes other than automobiles. This shift in transportation modes results in reduced automotive emissions. By providing a strong link between land use and transit, TODs increase the ability of transit to attract riders, reduce traffic congestion, improve air quality, and offer transportation choices.

TOD Challenges

Although much research has been documented about the values of TODs in reducing traffic congestion and providing transportation choices, building them has its challenges. These challenges can lead to costly project delays. Thus, this resource guide is designed to assist TOD project sponsors to overcome the following challenges that Alameda County project sponsors have identified as critical to advancing their TOD projects:

1. Funding: attaining funds for transportation improvements at TODs;
2. Parking: managing parking needs of residential commercial and transit users;
3. Stormwater: meeting stormwater requirements in high density TODs;
5. Policies and Design: developing policies and designs that allow innovative, high density TODs.

TODs require obtaining funds for transportation access improvements, which can range from sidewalks and bicycle lanes to parking garages. They also require meeting parking and stormwater regulatory requirements with innovative solutions. In addition, some TODs are located on sites that have been exposed to hazardous materials, which need to be remediated. Furthermore, the high housing density at TODs often requires zoning changes, which can lengthen the time to attain development approval. All of these issues, which have been raised at TODs throughout Alameda County, require a range of expertise. This Resource Guide, therefore, is designed to provide TOD project sponsors in Alameda County a convenient reference tool for finding solutions to commonly raised issues at TODs.

How to Use this Guide
This guide is written for TOD project sponsors—whether city or county redevelopment, planning or public works staff, or private or non-profit developers. It is organized by issue and includes references and brief descriptions of publications, websites, local and state contacts and associations and conferences that provide further information to manage and resolve these issues.
Overview of Steps to Getting Transportation Funds in Alameda County:
List TOD Project in County and Regional Transportation Plans:
Before a TOD project can be considered eligible for federal or state funding, it must be included in Alameda County CMA’s Countywide Transportation Plan (CTP) and MTC’s Regional Transportation Plan (RTP). The CTP is updated every four years. The next update is in 2009. To get a project in the plan, the project sponsor should coordinate with the city, county and transit operators to ensure that the project is listed as one of the priority transportation projects in the financially constrained CTP. Once in the CTP, it should then be included in the RTP. Once a project is in the Plan, it is not yet funded until it is programmed.

Apply to CMA for Federal and State Funds: To get programmed for federal and state funds such as federal STP, CMAQ or State STIP or Program Manager TFCA funds, project proponents must apply to CMA. When projects get programmed, different federal, state and regional agencies are responsible for reviewing and evaluating them. Each of the funding agencies has different requirements, schedules and funding cycles. It is critical to learn their requirements to ensure approved funding is maintained.

Coordinate schedule with other fund availability: When planning a project budget, look for opportunities to coordinate phasing with different funds that may be available. Determine which elements of the TOD, such as pedestrian, bicycle and transit access to the TOD, could be eligible for transportation funding. Determine whether you have opportunities to leverage pre-development fund sources as an early priority and whether it is possible to avoid gaps in time between construction financing and permanent capital financing.
1. Attaining funds to build TODs

In addition to the residential and commercial development components of TODs—which are not the subject of this resource guide—the transportation elements in a TOD are costly. They include parking garages, streetscape, and access improvements for bicyclists, pedestrians, cars and buses. This guide provides resources about the steps to obtain funds. (See Overview of Steps to Obtain Transportation Funds in Alameda County.) It also provide reference to funds available for the transportation components of TODs.

Resources:
The following agencies have information and more specific contacts on their websites about transportation fund sources for TODs.

### Alameda County Transportation Funding Agencies

<table>
<thead>
<tr>
<th>County</th>
<th>Regional</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda County Congestion Management Agency</td>
<td>MTC <a href="http://www.mtc.ca.gov">www.mtc.ca.gov</a></td>
<td>ACTIA (Measure B—local 0.8 cent transportation sales tax) <a href="http://www.actia.2022.com">www.actia.2022.com</a></td>
</tr>
<tr>
<td><a href="http://www.accma.ca.gov">www.accma.ca.gov</a> 1333 Broadway, Suite 220 Oakland, CA 94612</td>
<td>Funding includes Regional Transportation for Livable Communities grants for capital projects and Plans at TODs.</td>
<td>426 17th Street, Suite 100 Oakland, CA 94612</td>
</tr>
<tr>
<td>Funds includes County Transportation for Livable Communities grants for capital TOD projects listed in the Countywide Transportation Plan.</td>
<td>101 8th Street Oakland, CA 94607-4700</td>
<td>Funds include matches to MTC’s and ACCMA’s TLC grants and bicycle and pedestrian funds at TOD sites in the Countywide Bike or Pedestrian Plans.</td>
</tr>
</tbody>
</table>
Publications with TOD Funding Information:

*Moving Costs*, MTC, January 1999: A layman’s description of federal state and local transportation fund sources, including a glossary of fund acronyms and the process for obtaining transportation dollars.


Websites with TOD Funding Information:

- [www.accma.ca.gov](http://www.accma.ca.gov)
- [www.mtc.ca.gov](http://www.mtc.ca.gov)
Additional Information

Creative Financing for TODs:

Public & Private Partnerships
Many TODs rely on a mixture of public and private financing.

Public Financing: To overcome lenders’ concerns about financing mixed use projects or those with lower parking ratios than typical developments, *California Department of Transportation Statewide TOD Study* (2002) recommends:
- have multiple sources of capital with varying investment timelines,
- phase projects so that they can begin generating cash flow early while the remaining phases of the TOD are completed, and
- develop a solid track record for implementing projects and conduct accurate market studies.

Public financing can be used to fund transportation improvements at TODs. In addition to federal and state funds, the following are some of the transportation financing tools used in TODs throughout the US:
- **Bonds** can be sold for transportation infrastructure improvements at TODs and repaid through TIFs or PIFs (below):
- **Tax Increment Financing** (TIFs) – Funds collected from property tax generated from the new development return to the development.
- **Property Improvement Fee** (PIF) – Sales tax generated from the new development returns to the development.
TWO PARKING
2. Managing parking needs at TODs

In Alameda County, many proposed TODs are on surface parking lots on San Francisco Bay Area Rapid Transit (BART) property. In the past, BART or the local city or county have typically required a 1:1 parking ratio to replace removed surface parking spaces with structured parking spaces. Although the replacement structured parking made land available for development, replacement parking structures are expensive to finance. A parking structure can cost $25,000 or more per parking space. In recognition of the high cost of replacement parking along with the lower rate of automobile ownership at TODs, BART adopted flexible parking replacement policy. This has included requiring the provision of other access investments or leasing spaces in the private sector in lieu of the full parking replacement ratio.

TOD project sponsors throughout the United States have implemented a wide array of alternatives to 1:1 parking replacement while still meeting the parking needs of the new TOD development. The resources listed below provide information about a variety of parking options that have successfully been implemented at other TODs.

Resources

Publications

*Parking Spaces / Community Places: Finding the Balance through Smart Growth Solutions*, (EPA publication 231-K-06-001) This report highlights proven approaches that balance parking with broader community goals. Current codes typically apply minimums that may not meet the needs of communities and developers. An oversupply of parking is costly and creates places that adversely impact water quality and encourage excess driving and air emissions. The highlighted solutions cover communities that have found combinations of parking pricing, shared parking, demand management, and other techniques have helped them create vibrant places while protecting environmental quality and still providing
for necessary vehicle storage. For hard copies of this publication, send an
e-mail to ncepimal@one.net or call (800) 490-9198.

*Parking Management Best Practices,* by VTPI Executive Director Todd Litman and published by Planners Press, describes more than two-dozen strategies that result in efficient use of parking resources, and explains how to assemble them into an effective parking management program while allowing flexible building design. It includes descriptions of savings and economic, social and environmental benefits, and surface and stormwater management costs. This book identifies problems with current parking planning practices, describes specific parking management strategies and how they can be implemented, discusses methods for parking management planning and evaluation, and describes how to develop the optimal parking management program for a particular situation. For more information, also see the report, “Parking Management: Strategies, Evaluation and Planning” ([http://www.vtpi.org/park_man.pdf](http://www.vtpi.org/park_man.pdf)), which summarizes the ideas in “Parking Management Best Practices.”


“Turning Small Change into Big Changes,” Douglas Kolozsvari and Donald Shoup, *Access,* Number 23, Fall 2003, discusses using parking meter revenue for improvements in the neighborhoods in which they are located.

“Walk-and-Ride: Factors Influencing Pedestrian Access to Transit,” Robert Cervero, January 2001, reviews how sidewalk and street design influence conversion of shares of access from driving to transit to walk, bike and bus. An analysis of access trips to San Francisco Bay Area and Washington Metrorail is discussed.
“Driving Urban Environments: Smart Growth Parking Best Practices,”
Governor’s Office of Smart Growth,” Annapolis, MD.

The High Cost of Free Parking, Donald Shoup, APA Planners Press, 2005.
The author describes the detriments of free parking, including how it
makes our cities sprawl on a scale fit more for cars than for people. He then
proposes new ways for cities to regulate parking, namely, charge fair market
prices for curb parking, use the resulting revenue to pay for services in the
neighborhoods that generate it, and remove zoning requirements for off-
street parking. Such measures, according to the Yale-trained economist and
UCLA planning professor, will make parking easier and driving less neces-
sary.

Websites

www.epa.gov/smartgrowth/ Environmental Protection Agency. Includes
publications about parking and smart growth.

www.mtc.ca.gov/planning/smart_growth/tod/index.htm Metropolitan
Transportation Commission (MTC). Includes publications citing case stud-
ies about parking and TODs.

www.planetizen.com Planning and development network; provides resources
for applied economics for urban planners. Includes publications about
parking.

http://www.mdp.state.md.us/smartintro.htm State of Maryland Office of
Smart Growth. Website includes electronic versions of parking publica-
tions, including Smart Growth Best Management Parking Practices.

www.smartgrowth.umd.edu The National Center for Smart Growth
Research and Education is a non-partisan center for research and leader-
ship training on Smart Growth and related land use issues nationally and
internationally. Located at the University of Maryland in College Park, Md.,
the National Center for Smart Growth conducts independent, objective research in four general areas: land use and the environment; transportation and public health; housing and community development; and international development issues.

http://www.vtpi.org The Victoria Transport Policy Institute is an independent research organization dedicated to developing innovative solutions to transportation problems. The VTPI website has many resources addressing a wide range of transport planning and policy issues. VTPI also provides consulting services.
Meeting stormwater requirements at TOD sites
Stormwater goals and requirements focus on providing maximum permeable land surfaces to improve water quality. These requirements can appear to conflict with the goal of TODs to provide high density development around a transit hub. However, many developers, cities, site planners, landscape architects and regulators have designed creative alternatives to meet parking and stormwater needs.
Publications

*Protecting Water Resources with Higher-Density Development*

(EPA publication 231-R-06-001) This study provides information to help communities better understand the impacts of high and low density development on water resources. EPA modeled stormwater runoff from three different densities at three scales: one-acre level, lot level, and watershed level—and at three different time series build-outs to examine the premise that lower-density development is always better for water quality. The findings indicated that low-density development may not always be the preferred strategy for protecting water resources. The study shows that high densities may better protect water quality—especially at the lot level and watershed scale.

*Using Smart Growth Techniques as Stormwater Best Management Practices*

(EPA publication 231-B-05-00) To comply with the Clean Water Act, over 6000 communities across the nation are developing municipal stormwater permitting programs (also known as Phases I & II). Many of these communities are also implementing programs that encourage development in existing communities, redevelopment of vacant properties, promote transportation options and facilitate efficient use of land and infrastructure. “Using Smart Growth Techniques as Stormwater Best Management Practices” reviews nine common smart growth techniques and examines how they can be used to prevent or manage stormwater runoff. This publication will help communities encourage smart growth and meet the new regulatory requirements. For free hard copies of this publication, e-mail ncepimal@one.net or call (800) 490-9198. Electronic versions of these publications are available at: www.epa.gov/smartgrowth.

*Stormwater Guidelines for Green, Dense Development*, Emeryville, Nelson/Nygaard, EPA. Stormwater runoff study that addressed several redevelopment challenges, including a high water table, clay soils, and few absorbent natural areas among the existing and redeveloped industrial sites. The guidelines, and an accompanying spreadsheet model, were developed to make as much use of redevelopment sites as possible for handling stormwa-
The main strategies were reducing the parking footprint, and including landscaping and water storage in the project design.

**Weblinks**

EPA website:  [www.epa.gov/smartgrowth/stormwater.htm](http://www.epa.gov/smartgrowth/stormwater.htm)

[www.cleanwaterprogram.org/publications_libraryResources.htm](http://www.cleanwaterprogram.org/publications_libraryResources.htm)  Alameda Countywide Clean Water Program’s library of resources, including publications and outside links. Helpful resources for construction, development and redevelopment.

[www.smartgrowth.org/library](http://www.smartgrowth.org/library)  Includes articles about Smart Growth, including stormwater references.
FOUR HAZARDOUS MATERIALS
Hazardous Materials at TOD Sites

Many TOD sites located near rail or transit hubs have been used for previous purposes. These land uses may have generated hazardous materials on or off the TOD site. Such former land uses may have included a gas station, automotive repair, plating shop, dry cleaners or office. These uses often include the presence of cleaning products, lead based paint, asbestos or pesticides. Prior to developing or redeveloping a TOD site, the property owner or responsible party needs to assess whether and to what extent hazardous materials are found on site. If hazardous materials have been found on site, the owner may be responsible for remediating them.

For more information about how to address hazardous materials that may be present at TOD sites in Alameda County, see the resources listed below.

Resources

Agencies

Department of Toxic Substances Control (DTSC) Berkeley Regional Office
700 Heinz Avenue, Suite 200C
Berkeley, California 94710

Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, 2nd floor
Alameda, CA 94502-6577
Websites

Alameda County Department of Environmental Health
www.acgov.org/aceh

Department of Toxic Substances Control (DTSC)
www.dtsc.ca.gov

Regional Water Quality Control Board
www.waterboards.ca.gov

U.S. Environmental Protection Agency (EPA)
www.epa.gov

Additional Information

Hazardous Materials on Site—Who is Responsible?
The current property owner or operator or owner or operator at the time of release of the materials or the transporter of materials is responsible for preparing an Environmental Site Assessment (ESA) to characterize what contaminants are present on the site and to prepare and implement a remediation plan.
Since TODs are typically higher density development and use less parking than typical residential development, they often require changes to zoning regulations prior to being built. The following information provides examples of TOD policy and zoning, as well as creative designs successfully used in TODs.
TOD Policy and Design

Resources

Policy Publications

*Getting to Smart Growth II: 100 More Policies for Implementation*

This primer describes concrete techniques of putting smart growth principles into practice. For a copy, smartgrowth@epa.gov or call 202-566-2878. For FREE HARD COPIES of any of these publication, e-mail to ncepi-mal@one.net or call (800) 490-9198. Electronic versions of these publications are available at: www.epa.gov/smartgrowth

“Planning and Design for Transit,” Tri-County Metropolitan Transportation District of Oregon (TRI-MET), March 1993, a study that defines TOD, describes why it is needed, design elements, and how to use planning and zoning to produce it.

“Transit Villages in California: Progress, Prospects, and Policy Reforms,” Working Paper 98-08, Robert Cervero, October 1998 University of California at Berkeley. This study of the Transit Village movement in California details its legislative history, its impact to date, recent transit-oriented developments around the state, the results of past research on the various impacts of TOD and the barriers that still exist to further such TOD, various potential state initiatives and the preferences of stakeholder groups, and concludes with recommended state actions.

**TOD Policy**

**Local TOD Policy**


“Union City Land Use Element,” Station District, City of Union City, February 2002, calls for mixed use development around the BART station and intermodal facility.

**Weblinks**


Association of Bay Area Governments (ABAG): www.abag.ca.gov, Includes Resources and links to regional, state and national planning, policy, advocacy and smart growth organizations and agencies.

www.epa.gov/smartgrowth Includes publications, scorecards and other smart growth information.

www.mtc.ca.gov MTC's website includes helpful and practical publications and resources about smart growth.
Additional Information

BART TOD Policy, adopted July 14, 2005 by BART Board.

BART TOD Policy directs BART staff to:

1) Look for opportunities to coordinate and participate in TOD beyond the BART property, especially where this may lead to a better physical solution or phasing of development;

2) Consider forming a joint power authority, or similar arrangements, as appropriate, in order to allow for value-capture, attain the best physical design, and enhance project staging;

3) As appropriate, consider selling BART land for development in cases where (a) the land uses will remain transit-oriented, and (b) a value capture mechanism is in place that allows some portion of funds to come to BART;

4) Consider, as appropriate, reducing the 1:1 replacement of commuter parking, especially in cases where funding replacement parking is a barrier, high-densities are allowed, the city/community supports the reduction, there are opportunities to make sound investments in other modes of access (in lieu of parking) to the station (pedestrian walkways, bicycle paths, or feeder transit), and a substantial portion of future growth in the station catchment area is expected to be located near the station;

5) Emphasize placemaking that enhances the development and the community in the station area.
TOD Design

“Designing with Transit, Making Transit Integral to East Bay Communities, A Handbook for Elected Officials, Local Staff, and Other Community Builders,” AC Transit, January 2005. This handbook illustrates elements of making community more transit-friendly through land use, pedestrian network and the street/sidewalk system.


Linking Child Care with TODs

TODs can further reduce single occupancy vehicle trips by including child care at the TOD site. Such facilities can serve TOD residents and commuters using transit. They also provide a valuable amenity to the TOD. The opportunity for including child care at TOD sites requires coordination with developers, cities and transit operators early in the design phase.
General Information About TODs

Resources

Publications

The New Transit Town explores the key challenges to transit-oriented development, examines the lessons learned from the first generation of projects, and analyzes a broad spectrum of projects to set standards for the next generation. It discusses key issues such as financing, traffic and parking and performance measures to evaluate outcomes. It is designed for anyone interested in urban and regional planning and development, including planners, developers, community groups, transit agency staff, and finance professionals. Case Studies include Arlington, Virginia (Roslyn-Ballston corridor); Dallas (Mockingbird Station and Addison Circle); historic transit-oriented neighborhoods in Chicago; Atlanta (Lindbergh Center and BellSouth); San Jose (Ohlone-Chynoweth); and San Diego (Barrio Logan).
“Travel Characteristics of Transit-Oriented Development in California,” Hollie M. Lund, Ph.D., Robert Cervero, Ph.D., Richard W. Willson, Ph.D., AICP, January 2004. Provides a measurement of travel behavior in California TODs and compares current to earlier data to see how travel behavior changes over time.

Websites

smartgrowth@epa.gov  U.S. Environmental Protection Agency’s website include smart growth publications.

www.transitorienteddevelopment.dot.ca.gov  California Transit-Oriented Development Searchable Database.  Includes sample stations, projects, data and resources.

**National, State and Regional TOD Organizations**

**Reconnecting America**, www.reconnectingamerica.org/index.htm  Reconnecting America is working to redefine national policies for intercity travel in order to integrate our separately functioning aviation, passenger rail and intercity bus systems into a more convenient, secure, financially viable and sustainable network.

**Smart Growth America**, www.smartgrowthamerica.com, Non-profit national organization, a coalition of national, state and local organizations working to improve the ways towns, cities and metropolitan areas are planned and built. The coalition includes national organizations advocating on behalf of historic preservation, the environment, farmland and open space preservation, neighborhood revitalization and more. State- and regional-level members are community-based organizations working to preserve landscapes while making towns and cities more livable.

http://www.smartgrowth.org,  **Smart Growth Network** includes resources, tools, success stories, and more. The Network is a conglomerate of the US EPA and non-profit and government organizations. The Network was formed in response to increasing community concerns about the need for new ways to grow that boost the economy, protect the environment, and enhance community vitality. The Network’s partners include environmental groups, historic preservation organizations, professional organizations, developers, real estate interests; local and state government entities.

Resources

Publications

Linking Child Care, Transportation & Land Use: Local State and National Obstacles, Opportunities and Next Steps, Alameda County Local Investment in Child Care (LINCC), January 2006. A model for communities interested in developing and strengthening planning, funding and policy work between the child care and transportation fields.

Child Care, Land Use and Transportation: A Literature Review for the Local Investment in Child Care Project, LINCC, 2005.

Weblinks

The following link is from a national conference call that addressed many child care and transportation issues:

www.earlychildhoodfinance.org/MeetingsCalls.htm - See “2006 Early Childhood Finance Learning Community March 5 - 6, 2006”

Fact sheet on child care and transportation:

Additional Information

Child Care at TODs as Traffic Mitigation Measure: Child care has been used as one of the traffic mitigation measures in the City/County Association of Governments in San Mateo County Guidelines for the Implementation of Land Use Component of the Congestion Management Program.