FACT SHEETS

This booklet presents a series of brief fact sheets compiled by members of the Citizens Advisory Committee. Topics covered include SMART, Circulation, Retail, Housing, Parking, Complete Streets, and Green Streets. The document also presents two fact sheets compiled by City staff on Transit Oriented Development (TOD), and MTC Resolution 3434.

Authors of the fact sheets include:

- SMART: Roger Smith and Rich McGrath
- Circulation: Mike Fryer, Emily Dean, and Preston McCoy
- Retail: Brigitte Moran and Tammy Taylor
- Housing: Nicholas Kapas, Jeff Schoppert, Elissa Giambastiani, Gayle Theard
- Parking: Andrew Patterson and Marcus Lee
- Complete Streets & Green Streets: Judy Schriebman, Casey Mazzoni and Jean Starkweather
- TOD: City staff
- MTC Resolution 3434: City staff

For more information, visit www.cityofsanrafael.org/stationareaplans

This project is funded in part through the Metropolitan Transportation Commission's Station Area Planning Program. The preparation of this report has been financed in part by grants from the U.S. Department of Transportation. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

Table of Contents

Sonoma-Marin Area Rail Transit (SMART)
Fact Sheet

Purpose

The purpose of this fact sheet is to provide a summary of the SMART train project, especially as it applies to the Civic Center Station. The goal is to clarify the assumptions used by the designers of the system and to minimize misunderstandings that result from misinformation. This Fact Sheet will focus on metrics that help people conceptualize the impact of SMART on the Civic Center area where there is the greatest sensitivity: traffic, parking, and safety. The reader is reminded that all usage data are all projections of an un-built system, years into the future. They are all therefore estimates based on the best available information.

System Summary

At full build-out, the SMART system will be 70 miles long, traveling from Larkspur to Cloverdale while stopping at 14 stations. The Initial Operating Segment (IOS), starting operations in 2014, will be 40 miles long, running between Downtown San Rafael to Downtown Santa Rosa.

Two-way train service is proposed at 30 minute frequencies, operating in the weekday morning and afternoon commute periods, along with one mid-day train. Weekend train service is also proposed with four round trips per day on Saturdays and Sundays.
Access to SF: The first phase of the train service will terminate in Downtown San Rafael. Passengers will be able to take bus service on to the Larkspur ferry or SF. The second phase of SMART will continue the line on to Larkspur Landing. The station there will be located near the current location of Marin Airporter and passengers will to walk to the Ferry for added service to SF.
Train type: Diesel powered, 2 car vehicles (expandable to three cars) built by Sumitomo. Each two-car set will provide 158 seats, 4 wheelchair spaces, and storage for 24 bicycles. Each car is 85 feet long (making a married pair 170 feet long), 15' high, and 10'8" wide (for comparison, the articulated buses used by Golden Gate Transit are 60 feet long and 8'6'' feet wide).

Bike Pedestrian Use: SMART will also construct a multi-use pedestrian and bicycle path enabling non-motorized travel along the ***entire*** length of the corridor.

Timing: Phase I (IOS) will commence construction and initiate service in 2014 (Santa Rosa to Downtown San Rafael). Phase II will complete the service and initiate service in 2018. Construction of Phase II is dependent on SMART obtaining additional financing.

Noise: Train noise will be under 60 dBA(decibels) (for comparison, this is similar to a television and Golden Gate Transit buses generate80 dBA). State (PUC) law requires that horns to be sounded at all railroad crossings and this will generate noise levels approaching 100 dBA (similar to a jack hammer or a shout). The use of the horn can be avoided with the installation of additional safety equipment at the crossings at an extra cost and the City of San Rafael has requested that these quiet zone improvements be added to all crossings in the city.

Civic Center Station Activity

The Civic Center Station will be a 1-track station with lighting under the freeway.
There will be 24 trains per day on weekdays and four per day on the weekends.

The usage at the Civic Center is not projected to be evenly divided. In the morning it is an "arriving" station with approximately 75% of the passengers getting off to go to jobs in the neighborhood. In the evening, this reverses. This is known as an "arriving" station.

For this reason, users of the Civic Center Station might be expected to be more reliant on public transit and walking than other stations as the passengers can more easily use shuttles or walk to their offices.

In 2015, the total number of riders boarding and detraining over a weekday is projected to be approximately 470, growing to around 700 by 2040, mostly over the two, three hour commute periods in the weekday morning and evenings.

In the morning, if only 25% of the ridership is arriving at the station to leave the area, it will mean roughly 90 riders will come to the station during the morning commute period. SMART predicts about half are expected to drive to the station using personal automobiles (52%), while most will arrive by shuttle bus, on foot, or by bicycle (48%).

Parking: SMART projects the need for 130 parking spaces through 2025. The precise location of this parking has not been finalized. The most commonly discussed locations are the Christmas Tree Lot and the parking along

Connections, paths& trails: In the Civic Center area, SMART will construct a pathway on both sides of the tracks to the west of Highway 101 to improve connections to adjoining neighborhoods. This includes a multi-use path along the north side of the tracks through the station site connecting to the existing Puerto Suello Hill path to the south and the existing McInnis Parkway path to the north. Also, SMART will build a separate pedestrian path along the south side of the tracks between Merrydale Road and Civic Center Dr.

Bikes: In addition to the paths, The Civic Center station will have bike storage.

Bus& Shuttle Systems: SMART will initially fund two shuttle routes that will coordinate their schedules with SMART trains. As currently envisioned, one will serve the office-based businesses and the other will serve the Civic Center. However, the shuttle system is expected to be flexible in its response to user requirements and demand. Note that shuttle and bus service will be provided by SMART or service providers funded by SMART (e.g. Marin Transit). However, Golden Gate Transit, which operates commuter bus service on 101, will not serve the Civic Center SMART station directly.

Sources/Resources

- SMART White Papers -- http://www.sonomamarintrain.org/index.php/docs/whitepapers/
- SMART EIR -- http://www.sonomamarintrain.org/index.php/docs/eir/
- Downtown San Rafael Station Area Plan Background Report – http://www.cityofsanrafael.org/Assets/CDD/Planning/Downtown+San+Rafael+Station+Area+Plan+Background+Report.pdf
- Civic Center Station Area Plan Background Report -- http://www.cityofsanrafael.org/Assets/CDD/Planning/Civic+Center+Station+Area+Plan+Background+Report.pdf
- MTC Resolution 3434: Regional Transit Expansion Program – http://www.mtc.ca.gov/planning/rtep/
- Freight Trains: http://www.sonomamarintrain.org/userfiles/file/14_whitepaper_freight.pdf

Circulation
Fact Sheet

Purpose

The purpose of this fact sheet is to evaluate current circulation conditions from the Civic Center SMART station to employment destinations and to the station from residential areas within the Plan Area.

Background

The modes of circulation considered in this fact sheet are:

Mode	to/from residential	to/from employment
Private vehicles	x	
Bicycle	x	x
Walking	x	x
Golden Gate Transit Bus	x	x
SMART Shuttle		x

Ridership projection from SMART's EIR:

Peak Ridership	Boarding	Alighting
AM	60	98
PM	43	17

Employer Destinations

Civic Center, 1,200 employees, 0.5 miles, direct route along Peter Behr Drive

Bike	▪ Route currently lacks bike lanes ▪ Hill (~140 feet elevation change) ▪ Destination lacks bike parking
Walking	▪ Route currently lacks sidewalks ▪ Hill ▪ Distance exceeds distance average person wants to walk to work (0.25 miles)
Bus	▪ Existing bus lines: #45, 49, 233 and 259 ▪ Currently no bus stop at SMART station ▪ Increased ridership if bus timing is coordinated with train arrival ▪ Standard fare ($2.00) may be perceived as too high for such a short trip
Shuttle*	▪ Coordinated with train arrival and free

*Future service anticipated to begin concurrent with SMART train service

A shuttle bus operated by SMART will shuttle train passengers to the Civic Center. This is the most likely means of travel from the station to the Civic Center. The Civic Center is a walkable and bikable distance from the station, however, there are currently inadequate facilities for biking and walking between the station and the Civic Center. A sidewalk would need to be added along the west side of Civic Center Drive and along at least one side of Memorial Drive.

Bike lanes or a bike path in both directions could be added along both of these streets to encourage biking.

Northgate Mall, 500+ employees, route varies by circulation mode

Bike	▪ Route from Station: exit west, north on Merrydale to Las Gallinas ▪ Route length: 0.6 miles ▪ Route currently lacks bike lanes ▪ Adjacent freeway makes use of route feel unsafe and unpleasant ▪ Route not well lit ▪ Improvement needed for movements through intersection of Merrydale with Merrydale overcrossing and Merrydale with Los Ranchitos ▪ Low traffic on Merrydale – not a through street ▪ Destination (the mall) lacks adequate and visible bike parking
Walking	▪ Same as bike route ▪ Route currently lacks sidewalks ▪ Distance exceeds distance average person wants to walk to work (0.25 miles)
Bus	▪ Existing bus lines: #38, 45, 49, and 259 serve the mall area ▪ Currently no bus stop at SMART station, routes would need to extend to station o 2 possible Routes: ▪ North Route from station: north along Civic Center Drive, west on Merrydale overcrossing ▪ South Route from station: south along Civic Center Drive, west on N San Pedro Road, north on Los Ranchitos ▪ There is no main bus dropoff for northbound buses at the mall ▪ Existing arriving bus stops are on opposite side of Las Gallinas – necessitating pedestrian crossing of busy street and an additional walk to the mall building ▪ Increased ridership if bus timing is coordinated with train arrival ▪ Need to evaluate existing use of local service – is there capacity during peak hours to accept deboarding population of train? ▪ Standard fare ($2.00) may be perceived as too high for such a short trip
Shuttle*	▪ Coordinated with train arrival and free. ▪ May be preferable to bus if stop at destination is closer to actual destination (e.g. near the mall building instead of across the parking lot and street)

*Future service anticipated to begin concurrent with SMART train service

There is a direct route from the Station to the mall via Merrydale Road. This 0.5 mile-route would be well suited to pedestrians if pedestrian amenities such as sidewalks and streetlights were added. A means of directing bikes from Merrydale through the junction with the Merrydale overcrossing would be needed. This is the preferred route identified in the North San Rafael Vision Promenade Conceptual Plan (2002) for pedestrian and bicycle travel between the mall and the Civic Center. The plan also notes that though this is the preferred route, pedestrian and bicycle upgrades to the existing street are needed.

If/when a SMART shuttle is run to the mall, the pickup should be from Merrydale (north of the Station). Golden Gate Transit bus #45 connects the Civic Center with the Mall, as does Marin Transit bus #259, though the cost of such a short ride ($2.00) and the longer, less direct route taken may make this a less desirable option.

Embassy Suites Hotel, 100 employees, 0.3 miles along McInnis Parkway

Bike	▪ Separate bike path along route ▪ Bike crossing of McInnis Parkway to hotel entrance needed ▪ Hotel destination lacks bike parking
Walking	▪ Same route as bike route ▪ Route has sidewalks ▪ Distance is close to distance average person wants to walk to work (0.25 miles)
Bus	▪ Existing bus stops are near SMART station – no bus service to the hotel
Shuttle*	▪ Ridership only if shuttle timing is coordinated with train arrival ▪ Would be preferable to walking or biking if fare is low or free ▪ Would be preferable to walking or biking during inclement weather

*Future service anticipated to begin concurrent with SMART train service

Due to its very close proximity to the Station, the most likely means of travel to and from the station would be by walking or biking. Adequate sidewalks and an off-street bike path currently exist along McInnis Parkway. Crosswalks from the bike path to the hotel entrance should be added.

Other Employers:

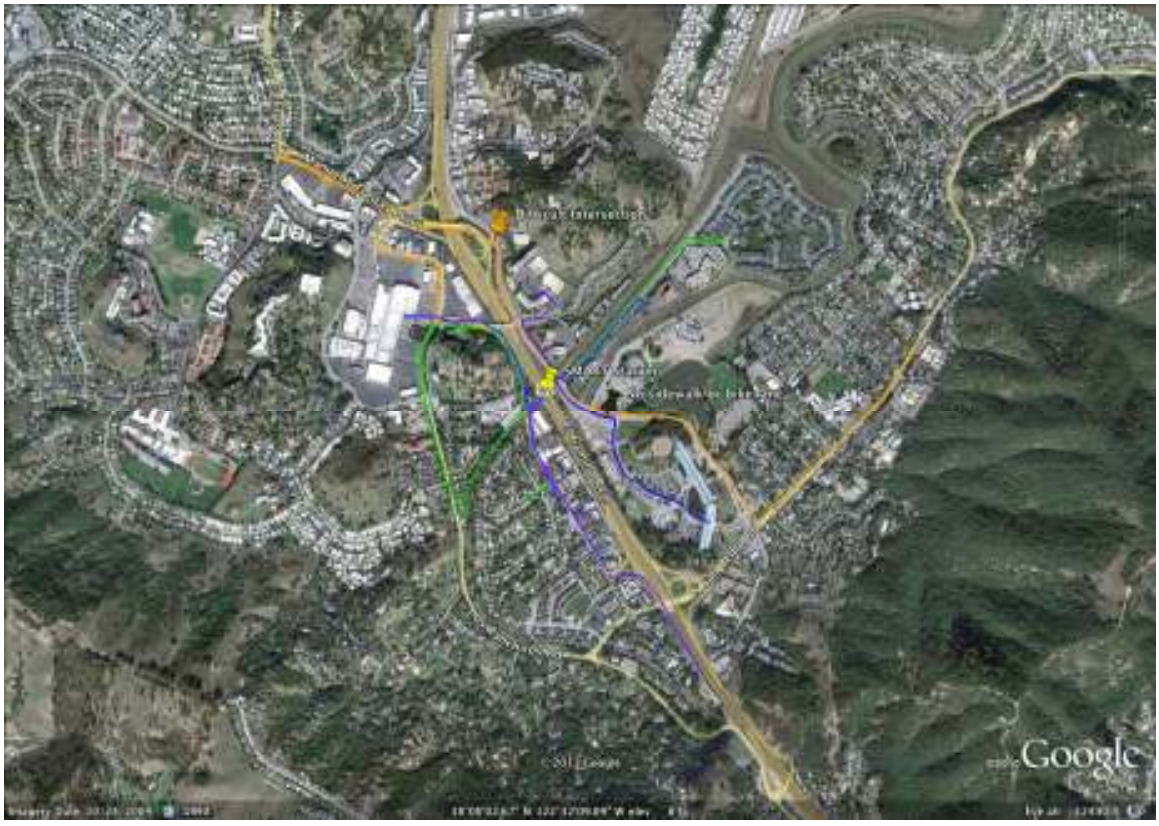
- Autodesk, 0.3 miles on Civic Center Drive
    - **Due to its very close proximity to the Station, the most likely means of travel to and from the station would be by walking or biking.** There are sidewalks from the station to Autodesk. The bike route could be clarified.
- Sutter Urgent Care, 0.5 miles along Civic Center Drive to Scettrini Drive
    - **Due to its very close proximity to the station, the most likely means of travel to and from the station would be by walking or biking.** There are sidewalks from the station to the Sutter Campus. The bike route could be clarified, e.g. the proper position of bikes through the left turn into the Sutter Campus.
- Retail along westside frontage road, Redwood Highway and Merrydale Road, 0.45 miles
    - **Due to its very close proximity to the station, the most likely means of travel to and from the station would be by walking or biking.** There is a break in Merrydale Road west of the future station where the railroad tracks and the adjacent Gallinas Creek form a barrier against travel. An informal path now exists that is used by people walking or biking south along Merrydale from the mall to the Rafael Meadows area. Per the proposed SMART station site design, pedestrian and bike through traffic on Merrydale will be routed east under the 101 overpass along the multiuse path south of the tracks, around the east end of the station crossing the tracks at Civic Center Drive, and back under the 101 overpass again along a path on the north side of the tracks.
    - To alleviate the situation a pedestrian and bicycle bridge or an at-grade pedestrian and bicycle crossing to connect the two parts of Merrydale Road should be considered. The bridge is called for in the draft San Rafael Bicycle and Pedestrian Master Plan.

- There are currently areas without sidewalks between the station and the retail area. Sidewalks would need to be added and bike routes clarified.

- Bus Connection to employers in Downtown San Rafael, Larkspur or San Francisco
  - **Should the Civic Center Station be the end of the SMART line for any period of time, shuttle bus connections to downtown San Rafael and Larkspur would be provided by SMART.** The shuttle stop would be adjacent to the station so as to not require passengers to cross a street. The route taken by the bus should minimize travel time to the next stop. The most direct connection from the station to Highway 101 southbound is via the onramp at Merrydale Drive south of the station. A bus stop should be considered at the current location of Public Storage.
- Kaiser, Terra Linda
  - **Kaiser intends to run a between its facility and the station. This is the most likely means of travel between the station and Kaiser.**

Residential Areas

In the map below, routes to/from residential areas are shown in green for pedestrian/bike routes and orange for vehicular routes. Blue lines represent routes to/from employer destinations. The purple line is the bus route to downtown San Rafael/Larkspur/San Francisco.



Santa Venetia – This large residential area is more than half a mile from the station; it is anticipated that the primary access will be via private vehicle. This could include "kiss and ride" drop off or passenger vehicles driving to the station and parking. Marin Transit operates a Santa Venetia Shuttle which connects the area with Civic Center Drive. The bus schedule would need to be coordinated with the train schedule if this were to be used as a connection.

Terra Linda – This large residential area is more than half a mile from the station; it is anticipated that the primary access will be via private vehicle. This could include "kiss and ride" drop off or passenger vehicles driving to the station and parking. In addition to the parking planned by the SMART Station on Civic Center Drive, parking and a drop off on the west side of Highway 101 should be considered to avoid directing traffic through the awkward intersection of Freitas and Civic Center Drive, through which offramp traffic from the highway is directed.

Rafael Meadows – Rafael Meadows is located within a half mile of the station, so it is anticipated that primary access would be via walking or biking. There is currently only an informal path and no sidewalks between the station and the Rafael Meadows neighborhood. Sidewalks would need to be added and bike routes clarified. As mentioned above, a pedestrian and bicycle bridge or an at-grade pedestrian and bicycle crossing should be considered to connect the two parts of Merrydale Road.

Sources for more information

- Civic Center Station Area Plan Background Report -- http://www.cityofsanrafael.org/Assets/CDD/Planning/Civic+Center+Station+Area+Plan+Background+Report.pdf

Retail
Fact Sheet

Purpose
This fact sheet explores possible retail shop ideas for transit oriented development in the vicinity of the new SMART rail station.

Background
In putting this list together, we kept in mind the desire in Marin County to try to keep retail locally produced and owned; thus we considered it important to offer opportunities for local vendors to step in and fulfill the retail needs around this transit stop. Based on this premise, we found the following information to be useful for considering the retail options around the transit stop near the Civic Center:

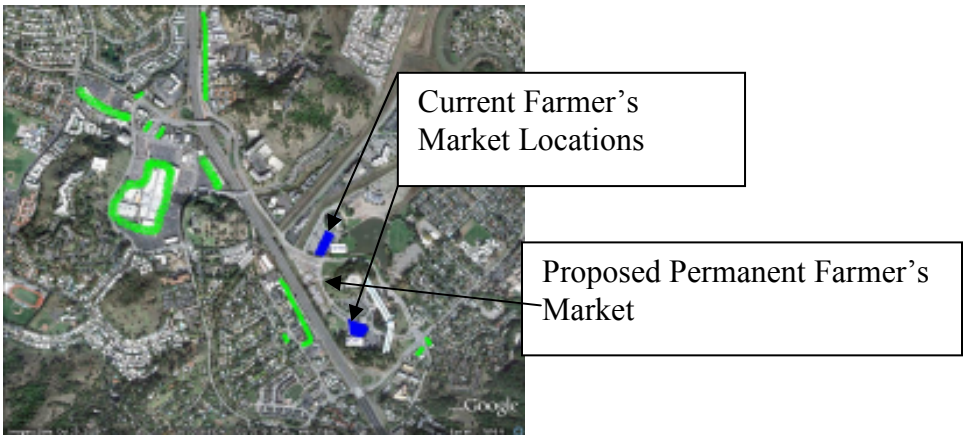
Successful and Appropriate Non-Destination Transit Stop Retail Outlets include:
- Convenient service-oriented businesses such as coffee shops, small bakeries, sandwich deli's and gift shops.
- Mixed-use housing/commercial opportunities wherever possible
- Farmer's Markets or other open shopping venues for light groceries
- Quick local shops that include toiletries and other supplies on the go.

Less-Appropriate Non-Destination Transit Stop Retail Outlets include:
- Smoke shops, Liquor stores & other specialty shops that are not conducive for commuters
- Video Rental stores
- "Big Box" grocery stores
- Large (or "Big Box") retail clothing stores
- Fast-food chain stores

Current Retail Establishments in the Civic Center Station Area
There currently exists no retail immediately adjacent to the SMART station location. Within a half mile of the planned station, retail exists on the west side of Highway 101, in the Northgate Mall and along Old Redwood Highway.

Within a 1/2+ mile radius of station:
- Mueller Mirror and Glass
- Park Bench Teak & Garden Furniture
- La Hacienda Taqueria
- Hudson Street Design
- La Toscana Restaurant
- A&W Restaurant
- McDonalds Restaurant
- Chevron
- Gaspare's Pizzeria
- California Bike- n- Bean (Bike Shop)
- La Grande Chic Cleaners (Dry Cleaners)
- Marin Bamboo Reef (Diving Center)
- Herb's Pool Service (Pool and Spa)
- Dandy Market
- McDonald's
- Toscana Restaurant
- Northgate III – Includes Michael's Arts and Crafts, CVS, and various other food and merchandise establishments.

- Northgate Mall – Regional mall anchored by Kohl's, Macy's, and Sears stores. It contains Century Theaters, a large food court, and over 90 separate retail establishments ranging from specialty stores, services, and restaurants. It is the only fully enclosed regional shopping mall in the county.



Current retail within the station area.

Chestnut Street in San Francisco combines an attractive mix of local businesses that are oriented towards the street. (Source: www.inetours.com)

Sources for More Information:

- "Developing Retail around Transit Hubs" by Bill Shelton http://buxtonco.com/commidNewsletters/20070711/7_9_commidnwsltr.htm

Housing
Fact Sheet

Purpose

The purpose of this fact sheet is to describe existing housing and the potential for new housing within the San Rafael city limits and the one-half mile radius area surrounding the proposed Civic Center SMART Station.

Background

The Civic Center SMART Station Area Plan advisory committee hopes to recommend to the City Council specific planning changes for improvements to be implemented around the future Civic Center SMART Station. These will likely take the form of proposed changes to existing land use and zoning regulations to promote the development of transit-oriented improvements, including both housing and non-residential uses. The proposed changes will serve two mutually beneficial goals: (1) they will encourage passengers to board or arrive at the Civic Center station, and (2) they will encourage and exploit the benefits to be derived from locating housing and other uses near a transit hub and destination.

Housing and Demographic Information for the Area within a ½-Mile Radius of the SMART Station

	2000	2035 – Local Planning Assumptions
Population	2,450	4,584
Household Population	1,522	2,003
Total Housing Units	1,056 (1)	1,976
Single-family	307	574
Multi-family	749	1,402
Persons per Unit	2.32	2.32

Notes:

1. The 2006 estimate was 1,056.

Data Sources:

Civic Center Station Area Plan Background Report, Table 2.1; MTC Resolution 3434 Case Study Corridor Evaluation – SMART Corridor Station Area Analysis 2005; 2000 Census; MTC TOD Policy Implementation & Evaluation 2006.

A 2009 estimate of housing in the area found 1,187 units, an increase reflecting the completion of the new Redwood Village neighborhood.

Existing public policies encourage these changes. For example, the Metropolitan Transportation Commission (MTC) has recently committed an additional $22 million to the implementation of the SMART project. This funding contribution is based in part on MTC's July 2005 Transit Oriented Development (TOD) policy (also known as Resolution 3434). That policy encourages an average for the SMART rail corridor of 2,200 housing units per station. This is a corridor average; some stations will plan for more and others for less. MTC's 2009 study named "MTC TOD Policy

Implementation & Evaluation" found the capacity for total housing in the Civic Center station area to be up to 2,419 units.

The City of San Rafael, likewise, has anticipated the coming of the train and encouraged land use changes in its *2020 General Plan* (2004). Several policies contemplate changes in the zoning ordinance to encourage higher density infill housing near transit service. They include:

- H-22. Infill Near Transit. Allow higher densities on sites adjacent to a transit hub, such as the Downtown Transportation Center or the potential Civic Center SMART station and along major bus corridors.
- NH-88. Sonoma Marin Area Rail Transit (SMART) Station. If rail service is initiated, support construction of a Civic Center SMART station. Encourage a plan that provides high density housing, bus transit connections, a parking lot, and incorporates pedestrian facilities and bicycle access (including bike storage facilities) consistent with the San Rafael Bike and Pedestrian Master Plan.
- NH-148. Residential Use at the End of Merrydale Road. Evaluate amending the General Plan and Zoning Ordinance to promote residential uses at the end of Merrydale Road.

This fact sheet is premised on the established policies and identifies (1) the housing that currently exists in the area, and (2) sites where housing or mixed residential/commercial development could take place in the future.

The train is expected to be operating and serve the Civic Center SMART Station beginning in 2014. The land use planning horizon is necessarily longer because changes in land use and development of real property is a much lengthier process, driven by changes in the supply of developable land, the demand for particular uses, and the economic feasibility of development.

Examples

San Clemente Place, Corte Madera, California
Open courtyard and landscaped central lawn area create sense of openness.
Garden and strategic use of planters in courtyard entryways tie in the natural beauty from the surrounding community. Architecture was designed to "uplift the entire neighborhood."

Total number of apartments: 79
One-bedrooms: 20
Two-bedrooms: 33
Three-bedrooms: 25
Density: 29 units/acre

All apartment homes in this development are affordable: the families, seniors, and developmentally disabled tenants pay no more than 30% of their income on rent and utilities, leaving enough money for food, clothing, medications, school supplies, transportation, etc.

San Rafael Commons, San Rafael, California
Trees, planters filled with colorful blossoms, and well-maintained landscaping creates a tranquil, woodsy oasis in the San Rafael Commons courtyard. The development is also an award winner, including:

- "Sensible Growth Award" (National Association of Home Builders and Better Homes and Gardens Awards)
- "Outstanding Contributions for Better Housing for All Americans Award" (National Association of Home Builders and Better Homes and Gardens Awards)

Total number of apartments: 83
Studios: 36
One-bedrooms: 47
Density: 86 units/acre

All apartment homes in this development are affordable: the seniors pay no more than 30% of their income on rent and utilities, leaving enough money for food, medications, clothing, transportation, etc.

Implications

What is needed for housing development? Some of the potential housing sites in the planning area are not currently zoned to allow residential development, or are zoned for lower densities. To allow higher-density residential development, the City Council will have to change the General Plan and zoning ordinance. Ensuring that the housing will actually be built will require something more, including:

- Current land owners agreeing to develop higher density mixed use or residential units, or to sell to developers willing to do so.
- Developers being willing to acquire and develop the property.
- Not-for-profit or governmental financial assistance being available to create affordable, special needs or workforce housing.
- Obtaining public support for proposed higher density developments.
- Resolving competing demands for affordable housing, commercial/retail uses in mixed use development, and/or market-rate housing.

The chart on the following page identifies potential housing sites in the station area as identified by members of the Station Area Plan Advisory Committee. It includes potential sites identified in the City of San Rafael's Housing Element, sites currently not zoned for housing, and other sites where housing is currently allowed at various densities. It is by no means an exhaustive, complete or final list; it merely identifies the areas where housing could be successfully built given the parameters above.

Potential housing sites In the area of the SMART station			
Sites designated in Housing Element:	**Notes:**		
Northgate Mall	Acres 40.5	Shopping Center	200 units
Northgate III	Acres 5.5	Strip Retail Center	203 units
600 Las Gallinas	Acres 2.3	Bank	85 units
4380 Redwood	Acres 5.1	Office	189 units
Former Breuners	Acres 1.2	Commercial	45 units
Commercial sites not currently zoned for housing:	**Notes:**		
Public Storage (North End of Merrydale Road)	* Current zoning: PD(1436) (Planned Development District - The PD District was specifically drafted for public storage use on the subject property		
Northgate Security Storage (West side of Merrydale Road)	* Current zoning: LI/O (Light Industrial/Office District)		
Other sites for housing in the area:	**Notes:**		
Dandy Market (Merrydale Road)	* Current zoning: NC (Neighborhood Commercial District - 1,800 sq. ft. per dwelling unit) * Housing allowed: 6.5 – 15 units per acre		
Redwood Highway (West side of Highway 101, mixed use)	* Current zoning: GC (General Commercial District) *Housing allowed: 15 – 32 units per acre		
Autodesk (Corner of Civic Center Drive and McInnis Parkway)	* Current zoning: PD(1448)-WO (Planned Development District, Wetland Overlay District) *Housing allowed: 15 – 32 units per acre		
Sizzler Restaurant (End of Redwood Highway)	* Current zoning: GC (General Commercial District) * Housing allowed: 15 – 32 units per acre		

Sources for more information

- Metropolitan Transportation Commission, MTC Resolution 3434 Transit-Oriented Development (TOD) Policy For Regional Transit Expansion Projects, Adopted July 27, 2005 http://www.mtc.ca.gov/planning/smart_growth/tod/TOD_policy.pdf
- Civic Center SMART Station Area Plan Background Report http://www.cityofsanrafael.org/Assets/CDD/Planning/Civic+Center+Station+Area+Plan+Background+Report.pdf
- MTC TOD Policy Implementation & Evaluation, Updated SMART Corridor Station Area Capacity Assessment and Methodology (Community Design and Architecture completed a Station Area Capacity assessment of the SMART corridor for MTC. It includes some housing projections for more mid-term dates.) You can access the report here: http://www.mtc.ca.gov/planning/smart_growth/tod/MTCTOD_SMARTassesment2009_120

109.pdf It should be noted, however, that that the Sustainable Communities Strategy work being done by ABAG, underway at this time, may revise these forecasts, particularly for the 2025-2035 timeframe.

- San Rafael General Plan 2020 http://www.cityofsanrafael.org/Government/Community_Development/General_Plan_2020.htm
- Marin Countywide Plan http://www.co.marin.ca.us/depts/cd/main/fm/cwpdocs/CWP_CD2.pdf
- San Rafael Draft Housing Element http://www.cityofsanrafael.org/Assets/CDD/3.+Housing+Element.pdf.pdf

Parking
Fact Sheet

Purpose

The purpose of this fact sheet is to examine possible alternative parking strategies for the Civic Center station area in anticipation of the arrival of SMART train service and new housing and commercial uses. It is important to note that the scope of the Civic Center Station Area Plan does not include the provision of parking for SMART, but does include the management of increased parking demand in the study area.

Important factors to consider

The Environmental Impact Report (EIR) identified the need for approximately 130 spaces to serve commuter parking at the Civic Center SMART station. The station design in the EIR included an area for parking on County of Marin property just south east of the SMART station. As the County is currently considering using most of the potential parking site as a permanent Famers Market, staff from the County and SMART are currently discussing appropriate alternative locations for commuter parking.

The Civic Center Station Area Plan will not address parking as it relates to the SMART station; however, the plan will include parking recommendations related to parking needs for transit oriented development in the vicinity, policies to address increased demand for parking, and programs to address the need for additional parking related to SMART service.

Successful parking strategies depend on various contextual community factors. What is appropriate in a dense, mixed-use place like downtown San Francisco may not be appropriate the Civic Center station area. Likewise, what is appropriate for a suburban location with little or no public transportation access may not be appropriate for the Civic Center.

Important contextual factors to consider when drafting parking strategies include:

1. **Land use mix** refers to different types of land uses (residential, commercial, institutional, recreational, etc.). Mixed use development tends to have lower parking ratios because of the close proximity of uses, and because people are able to walk from one use to another (for example: from the restaurant to the movies). Land use mix also includes different housing and income types. This affects how many commuters will be using SMART. For example, high income residences are less likely, in general, to use public transportation, whereas medium to low income residences may be more likely to use the rail system due to lower rates of car ownership.
2. **Density** refers to the amount of units or residents in a certain area. Zoning requirements ensure one to two spaces per unit. Higher density housing must accommodate related parking on-site in a more compact area, compared to lower density areas such as in Terra Linda. Certain times of the year, during special events or holidays such as Fourth of July, parking near the Civic Center is filled to peak capacity.
3. **Parking Access** will play a large part in whether or not drivers will use a certain parking area. Also, it is important for drivers to be aware of all of the car and bike parking options in order for a parking system to be efficient, useful, and functional.

Possible Strategies

Parking strategies range from modifications to existing parking supply and facilities, construction of new facilities (for cars and bikes), to policies and measures aimed at decreasing or shifting parking demand to non-peak times. The charts and lists below chronicle a variety of possible parking options that could be implemented in the Civic Center area.

POTENTIAL PARKING STRATEGIES			
	Description	**Pros**	**Cons**
Remote Parking Areas	Create remote parking to serve the station area	Creates a parking area for residents, employees and shoppers; uses vacant land	May not be used as much as on-site parking, may require additional costs for shuttle services
Redesign Parking Facilities	Change normal parking spaces into compact ones, and create motorcycle, scooter and bicycle parking spaces.	Creates compact spaces. Economizing space is an inexpensive way to increase parking capacity as compact spaces are 20% smaller than conventional parking spaces.	If current trends move towards larger vehicle size, compact spaces may not be used. Also requires redesign and restriping costs.
On Street Parking	Create more on-street parking through converting parallel parking into angled parking, and/or converting traffic lanes into parking lanes.	Convenient, cost effective, uses less land per parking space, less expensive than creating remote parking spaces or car stackers.	In some situations, possibilities of collisions and risks for bicyclists may increase, as well as increased traffic due to reduction in traffic lanes.
Shared Parking	Share parking with other uses depending on peak hour use.	Reduces the amount of land devoted to car parking.	Peak hour use may exceed parking lot capacity.

Other Policy Options:

- Provide Parking Information to Users.
  - Pamphlets and signs would serve to inform drivers about parking.
- Encourage Use of Remote Parking.
  - Provide information and directions to remote parking areas.
  - Provide shuttle transportation from parking areas to Civic Center Station.
- Regulate Parking.
  - Limit the amount of time vehicles can park on the street to encourage turnover.
  - Regulate the types of vehicles parking in an area.
  - Control on-street parking during certain times to prevent commuter parking, such a time limits or a parking permit program in residential neighborhoods.

Bicycle Parking:

- **Examples**
  - Sacramento's and Santa Clara's light rail transit systems both have bicycle parking available, including weatherproof bike lockers for commuters.

- Although bike lockers are more expensive than bike racks, commuters find it more appealing to have their bicycle safe from weather and theft when at work.

- **Pros**
  - Commuters using bicycles will find lockers safer than typical bike racks.
  - Protects bikes from rain and sun exposure.
  - Will attract more commuters to use bicycles rather than cars.
- **Cons**
  - Costs more to purchase lockers rather than racks.
  - Maintenance costs of bike lockers higher than bike racks.
  - Unintended use of bike lockers for activities other than bike storage.
  - Uses more space than bike racks.

Sources for more information

- On parking structure design:
  - National Institute of Building Sciences: http://www.wbdg.org/design/parking.php
- On parking management:
  - Victoria Transportation Policy Institute: http://www.vtpi.org/tdm/tdm72.htm
  - Transportation Authority of Marin: http://www.tam.ca.gov/index.aspx?page=271

Metropolitan Transportation Commission:
http://www.mtc.ca.gov/planning/smart_growth/parking_seminar/Toolbox-Handbook.pdf

Complete Streets
Fact Sheet

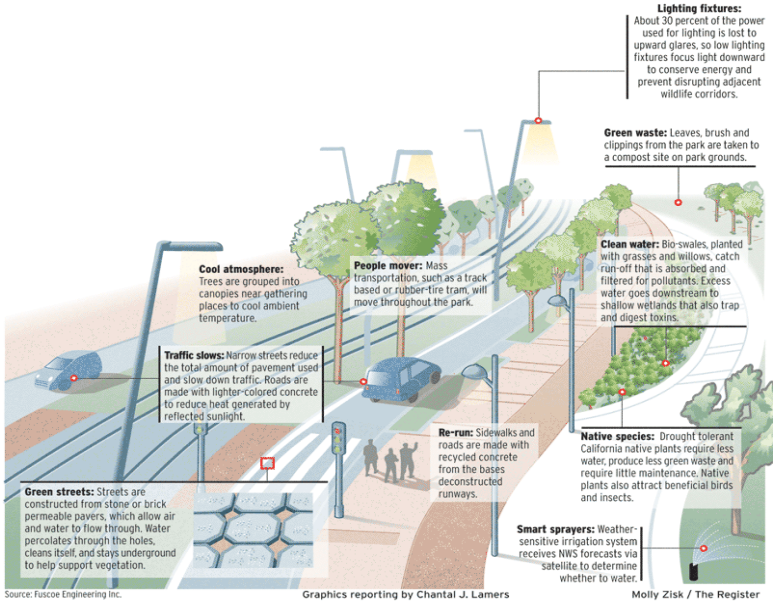
Purpose
The purpose of this fact sheet is to examine the possibility of incorporating Complete Street guidelines in the Civic Center Station Area Plan.

Background
"Complete Streets" are designed to enable safe access for all users: pedestrians, bicyclists, motorists, equestrians and transit riders. Complete Streets can include streetscape and infrastructure improvements that make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations. Complete Streets are important because they allow for different travel choices. Multiple convenient, attractive, and safe options for travel allow people not to rely solely on automobiles. Complete Streets improve the efficiency and capacity of existing roads too, by moving more people in the same amount of space. The National Complete Streets Coalition (www.completestreets.org) served as the main source of information for this fact sheet.

Examples
There is no singular design recommendation for Complete Streets; each one is unique and meets the specific needs of its community. A complete street may include: sidewalks, bike lanes, horse trails, special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more. A complete street in a rural area will look quite different from a complete street in a highly urban area, but both are designed to balance safety and convenience for everyone using the road.

Complete streets offer many community benefits, regardless of size or location. Complete Streets:

- improve public safety.
- encourage walking and bicycling for health.
- can lower transportation costs for families.
- foster strong communities.



Many states and cities have adopted bike plans or pedestrian plans that designate some streets as corridors for improvements for bicycling and walking. Among the states with some form of complete streets policy are Oregon, California, Illinois, North Carolina, Minnesota,

Connecticut, and Florida. The City of Santa Barbara calls for "achieving equality of convenience and choice" for pedestrians, bicyclists, transit users, and drivers. Columbia, Missouri adopted new street standards to encourage healthy bicycling and walking. In addition, the regional body that allocates federal transportation dollars around Columbus, Ohio has directed that all projects provide for people on foot, bicycle, and public transportation. The Sacramento County Department of Transportation has incorporated unique solutions to bicycle and pedestrian travel at a difficult cloverleaf-style interchange. They also made changes to improve the street environment for buses and bus riders – and even for horses. Locally, the town of Fairfax has adopted a resolution encouraging the Complete Streets concept.


Separated bike lanes, painted crossings, planted medians (from completestreets.org)

Implications

Complete Streets and the Economy: Creating infrastructure for non-motorized transportation and lowering automobile speeds by changing road conditions can improve economic conditions for both business owners and residents. Street design that is inclusive of all modes of transportation, where appropriate, improves conditions for existing businesses, can also be a method for revitalizing an area and attracting new development. Complete streets can also boost the economy by increasing property values, including residential properties, as generally homeowners are willing to pay more to live in walkable communities.

Complete Streets and the Environment: Complete Streets is an essential component to making it possible for Americans to drive less. Complete Streets will help convert many short automobile trips to multi-modal travel. Studies have shown that 5-10% of automobile trips can reasonably be shifted to non-motorized transport. This can contribute to lower greenhouse gas emissions; studies estimate that a widespread switch from driving to transit, walking, or biking for short trips could reduce total U.S. greenhouse gas emissions by 3 to 8 percent (see Rails to Trails Conservancy Report).

Complete Streets and Health: Complete streets provide opportunities for increased physical activity by incorporating features that promote regular walking, cycling and transit use. Walkability has a direct relation to the health of a community. Easy access to transit also contributes to healthy physical activity. A community with a complete streets policy ensures streets are designed to make it easy for people to get physical activity as part of their daily routine. Studies show that each additional hour driven by an individual per day corresponds to a 6 percent increase in the likelihood that said individual is overweight (see Frank et al, 2004).

Sources for more information

- National Complete Streets Coalition: www.completestreets.org
- Rails to Trail Conservancy – Active Transportation for America Report: http://www.railstotrails.org/ourwork/advocacy/activetransportation/makingthecase/index.html
- Frank, L.D. et al (2004) Obesity Relationships with Community Design, Physical Activity, and Time Spent in Cars. American Journal of Preventative Medicine 27:2. http://www.act-trans.ubc.ca/documents/ajpm-aug04.pdf

Appendix

CIVIC CENTER STATION AREA PLAN -- OPPORTUNITIES FOR COMPLETE STREETS

CIVIC CENTER DRIVE AT SMART STATION:
Add trees for emphasis and comfort, and lighting. Add bike lanes, sidewalks and a marked crosswalk across Civic Center Drive, which should have a different form of paving to make this area stand out as a center. Permeable pavers could allow absorption of rain water. An interpretive sign describing the creeks and marsh can add to public appreciation and enjoyment of the area. Public art can also lead to enjoyment of the area. (see OCR article about Seattle and Portland's art http://www.ocregister.com/travel/-282638--.html)

MERRYDALE ROAD FROM THE NORTH OF THE STATION:
Repair road surface, add bike lanes and sidewalks and add lighting. The creek remains as an amenity and for water storage, with a bridge for bicyclists and pedestrians who currently use this connection by pushing bikes through the creek in the drier seasons. The route of this section of Merrydale Road is awkward, however; see possible alternative:

Possible alternative: Acquire an easement for a fenced bike and pedestrian trail between the cemetery and Guide Dogs for a shorter, direct route from the SMART station to the Northgate area and its completed class 1 bicycle path. This new path between the cemetery and Guide Dogs would be narrow, but visually pleasing due to the landscaping already on these properties.

MERRYDALE ROAD FROM THE SOUTH:
The present road needs paving, sidewalks, and bike paths from the south to the SMART station. Some kind of turnaround is also needed at the north end of the road. Lighting also needed. The creek and a new bridge as well as the second bridge already there serve as amenities and a reminder that this area has much water, several creeks, and redwoods. The sidewalks and bike paths should also extend south of North San Pedro Rd. to connect with the Caltrans Puerto Suello Hill bike path.

NEIGHBORHOOD PATH TO THE WEST:
This is a short path but an important link from Las Gallinas Rd. in the Rafael Meadows neighborhood to Ranchitos Rd. near Walter Place, and access to Northgate and beyond. Sidewalks and a crosswalk are needed on Ranchitos Rd. The path is also used by equestrians.

NEIGHBORHOOD PATH ALONG RAILROAD TRACK:
This narrow path along the railroad track right-of-way is used by walkers and by equestrians as a major route between the Los Ranchitos neighborhood and the civic center horse ring. It should remain unpaved for horse use. It is also enjoyed for quiet walks by the neighbors. It is not a multiple-use "complete street" but is a neighborhood amenity in combination with Ranchitos and Merrydale Roads.

Green Streets
Fact Sheet

Purpose
The purpose of this fact sheet is to examine the possibility of incorporating green street guidelines in the Civic Center Station Area Plan.

Background
"Green Streets" are the current water-wise planning model for landscape, street, and urban corridors aimed at protecting, cleaning and capturing rainwater, helping to store fresh water supplies during periods of rain and preserve the best water for drinking while still having enough to maintain landscaping, fields and food gardens.

The Old Model: "Pave it, pipe it, pollute it." This typically consists of straight, impervious, concrete ditches, an example of which now encloses the middle channel of Gallinas Creek along Freitas Parkway. Water is sent directly to open bodies of water before it can soak into the groundwater system.

The New Model: "Slow it, spread it, sink it." Soil can hold an impressive amount of water, releasing it slowly to the roots of trees and plants throughout the year. Water percolates through the landscape, moving down into the soil and down the watershed. Springs at the top of the Santa Margarita area run year long, even during the drought, fed by trapped water, held and slowly released into the landscape by serpentine soils.

Examples
The benefits of green streets include:

- Gravel strips in asphalt parking lots can trap oil from cars. Bacteria in the soil break the oil down, keeping waterways clean.
- Curb cuts allow water to flow from streets into below-grade, planted bioswales, letting the water percolate into the ground rather than running off.

Green Streets in Portland (Source: Environmental Services, Portland Oregon, USA)

- Plant roots soak up water and remove nitrogenous and phosphorous "wastes" as nutrients, keeping them from contaminating streams.
- Plants soften the urban hardscape and make an area more attractive.

- Permeable pavers help water seep down into the soil rather than drain off.
- Swales in parking lots perk water while the plants and soil organisms help break down multiple contaminants.
- Green plantings soften the urban heat island effect of large asphalt lots.
- Multiple storied lots can capture rain in top level gardens or with "living walls," architecturally designed vertical gardens.

Green Streets Project with Information Placard (Source: Environmental Services, Portland Oregon, USA)

Other strategies include backyard rain gardens, rain barrels, cisterns under parking lots and buildings, SilvaCells[1], living walls[2] and green roofs for water capture. In Los Angeles, a 110,000-gallon rainwater cistern, hooked to a water treatment system at an elementary school, irrigates lush new landscaping. The school is both greener—literally and figuratively—and cooler, thanks to the reduction in asphalt surfaces and increase in shade. The cistern provides for all their landscaping requirements.

Implications

Properly designed green streets enhance the urban landscape, increase property values, add invaluable aesthetics, and provide vital wildlife habitat as well as naturally cleaning the water flowing into the bay. Restored creeks have become valuable community assets in cities, counties and municipalities that have embraced them as amenities and resources, rather than plumbing problems.

Restored creek in Ashland, Oregon flows alongside busy outdoor restaurant eating areas. High vegetated banks near downtown provide flood control while maintaining a natural appearance. A large park with bike paths, an outdoor amphitheater, gardens and picnic areas border the creek on both sides further up the watershed. (Source: Environmental Services, Portland Oregon, USA)

Sources for more information

- Stormwater Best Management Practices -- http://www.wsdot.wa.gov/publications/manuals/fulltext/M31-16/chapter5.pdf
- Portland Green Streets -- http://portlandgreenstreets.org

1 http://www.deeproot.com/products/silva-cell/silva-cell-overview.html
2 http://chemicallygreen.com/10-incredible-living-walls/

Transit-Oriented Development
Fact Sheet

Purpose

The purpose of this fact sheet is to examine Transit-Oriented Development (TOD) as a strategy to leverage transit ridership and create a vibrant, mixed-use, livable area around the Civic Center SMART train station.

Background

Transit-Oriented Development is development along transit corridors composed of compact neighborhoods that include housing, jobs, shopping, community services, and recreational opportunities within one-half mile walking distance of a major transit station.

The key elements of TOD include:

- **Transportation Choice** – Transit stations are the center of TODs. Such developments have access to a variety of transportation options including walking, bicycling, rail transit, bus transit, and/or driving.
- **Design** – TODs are designed as comfortable places to live, work, and play. They respond to local contexts, incorporating safe crossings, continuous and wide sidewalks, traffic calming improvements, street-oriented buildings, attractive public space and public art, and functional street furniture.
- **Parking** – Shared parking strategies, maximum parking requirements, "unbundled" parking and other reduced parking strategies encourage lower levels of car ownership in TODs, and reduce the amount of land devoted to car storage.
- **Mix of Uses** -- Development surrounding the station includes a mix of residential, retail, office, commercial, institutional uses. Typical suburban design is based on single use categories, where residential is separated from office employment areas which are isolated from retail shopping centers. Mixed uses promote a walkable environment where residents, employees and shoppers mingle on the street.
- **Public Realm** – TODs include pedestrian friendly areas with safe and thoughtfully designed community spaces. Public areas are viewed as "community rooms" and gathering spaces where people share events, encouraging interaction and community building.

TOD is a response to suburban development that has led to increased automobile dependence, traffic congestion, poor air quality, fragmented neighborhoods, and unhealthy lifestyles. TODs include pedestrian and bike friendly areas to live, work, and play. Blocks are typically short, generating a fine-grained network of streets that make it easier for pedestrians to get from place to

place. Parking is regulated, as TODs typically exhibit maximum as opposed to minimum parking requirements. Roadway space is shared between all modes of transportation, automobile traffic is limited to lower speeds, and transit services are frequent and reliable. Overall, TOD leverages transit ridership by creating housing, services, employment and community spaces within walking distance to transit.

Examples

Arlington County, Virginia (26 square miles; 210,000 people) – Located directly across the Potomac River from Washington DC, Arlington County clustered its development by mixing uses along Metrorail lines, making these station areas vibrant and popular with both visitors and residents. Strategies employed by county planners included targeted infrastructure improvements, incentive zoning, and development proffers to entice development around transit. Since 1960, over three quarters of all development in the county occurred along these rail corridors; Arlington County exhibits one of the premier examples of a successful TOD scheme.

Dublin BART Station (14.24 square miles; 50,000 people) – The 90 acre area around the station includes 1,800 homes, numerous shops and offices, and two neighborhood public squares. Much like the current Civic Center Station site, the Dublin BART station is not located in an existing downtown; planners created a new activity center from scratch. The Camelia Place apartment complex is mixed use, only 3 blocks away from the BART station, and contains 112 affordable units.

Canton, Massachusetts (19.6 square miles; 21,916 people) – Located along a commuter rail line with services to Boston's Back Bay and downtown areas, Canton created a new bylaw to encourage higher densities and mixed uses around its train station, catalyzing extensive development. The City also created an attractive pedestrian environment, enhancing connections between Canton's train station and downtown area. Like the Civic Center station area, Canton is connected to the greater region via commuter rail and bus service, and used these connections to leverage private investment.

Strategies

Station Area Planning. TOD Plans help get the most out of an area's proximity to transit, laying the planning framework necessary to ensure the construction of transit oriented (as opposed to transit adjacent) development. Transit Adjacent Development is defined as more conventional, automobile-oriented development located near transit stations. The planning process should include public input on project designs, thus enhancing their success.

Pedestrian and bicycle-supportive infrastructure. Wide sidewalks and bike parking enhance connectivity and encourage sustainable transportation to and from transit and station areas. They create the urban environment necessary for successful TOD.

Parking Management and shared parking. The over-provision of parking is one of the biggest disincentives to transit use. Reducing parking requirements and regulations can help create a local population of transit riders.

Expedited permits and reviews. As increasing transit usage and creating vibrant neighborhoods and are important civic goals, expediting the review and permitting processes for TODs encourages their construction, and in turn helps cities reach desired outcomes.

Rezoning. Sometimes current zoning doesn't allow for the density, height, parking uses, or mix of land uses necessary for successful TOD. Changing the zoning of parcels within a certain proximity to major transit stations can help spur the construction of TOD.

Local transit service design. Providing local transit connections to and from major transit stations expands the catchment area of transit systems, increasing ridership and creating more opportunities to construct TOD.

Findings

- *Households & Property Owners* benefit from reduced household fuel costs and increased property values. Seniors and youth benefit from safe and alternative forms of transportation. Everyone benefits from the creation of attractive and walkable neighborhoods. Studies show people who use alternative transportation benefit from increased health benefits.
- *Transit agencies* benefit from increased ridership. Residential and commercial uses around transit stations provide large numbers of riders that can lead to increased service levels, making transit more reliable and convenient.
- *Employers & business* benefit from increased transactions in areas near transit from an expanded market. Studies show that employees who use transit show lower rates of absenteeism and tardiness.
- *Regions* experience improved air quality from higher rates of alternative transportation use and less congestion.
- *Government* benefits from increased sales and property tax revenues.

Sources

- The Victoria Transport Policy Institute -- Transit Oriented Development: Using Public Transit to Create More Accessible and Livable Neighborhoods http://www.vtpi.org/tdm/tdm45.htm
- The MTC – Smart Growth / Transportation for Livable Communities http://www.mtc.ca.gov/planning/smart_growth/tod/index.htm
- Reconnecting America / The Center for Transit Oriented Development -- http://reconnectingamerica.org/public/tod

MTC Resolution 3434 Transit-Oriented Development Policy Fact Sheet

Purpose

The purpose of this fact sheet is to explain the MTC Resolution 3434 Transit-Oriented Development Policy for Regional Transit Expansion Projects (1) as it relates to the Civic Center Station Area Plan.

Background

The Metropolitan Transportation Commission (MTC) adopted the TOD Policy in July 2005. The policy has the following goals:

- Improving the cost-effectiveness of regional investments in new transit expansions
- Easing the Bay Area's chronic housing shortage
- Creating vibrant new communities
- Helping preserve regional open space
- Leverage housing development to maximize ridership

The policy applies to nine Bay Area transit extensions funded in the Resolution, including the Sonoma-Marin Rail (SMART) commuter rail project. Three key elements of the policy include:

- Corridor-level thresholds to quantify appropriate minimum levels of development around transit stations along new corridors
- Local station area plans that address future land-use changes, station access needs, circulation improvements, pedestrian-friendly design, TOD-supportive parking policies and other key features in a transit-oriented development
- Corridor working groups that bring together CMAs, city and county planning staff, transit agencies, and other key stakeholders

For a commuter rail project, jurisdictions must plan for a **corridor average** of 2,200 housing units within a ½ mile radius around each station. Stations with more existing or potential housing units can offset stations with fewer. Existing and planned uses may be counted. Planned land uses must be adopted through general plans and zoning codes. New below market rate housing is provided a 50% bonus towards meeting the housing unit threshold.

The Civic Center Station Area Plan is funded with MTC station area planning grant monies. With the initiation of commuter rail service in 2014, the station area plan is an opportunity to refine the land use plan for the area around the new SMART train station, as well as the programs (zoning, design guidelines, parking regulations) for implementation.

Civic Center Station Area

The Civic Center SMART Station will be located underneath the freeway, west of Civic Center Drive north of McInnis Parkway. The station area is defined as a half-mile radius around this site. A study conducted by Community Design + Architecture in 2009 (2) found 1,187 units based on existing zoning within this area. That study also found the development potential to be an additional 482 – 1,173 units, putting the capacity at 1,693 – 2,419. Details of the methodology used can be

found in the report MTC TOD Policy Implementation & Evaluation (link provided at the end of this fact sheet).

Increasing capacity for and encouraging housing around the Civic Center SMART Station can help focus growth, protect nearby neighborhoods, and leverage ridership for the train.

Implications

MTC funding is directed to maximizing its investments in transportation to reduce greenhouse gases, foster mixed-use livable neighborhoods, and encourage affordable housing.

San Rafael's land uses and zoning at the Civic Center contribute to the corridor average of the TOD Policy (the area is not required to meet any mandatory number).

Sources for more information

- (1) MTC Resolution 3434 Transit-Oriented Development Policy for Regional Transit Expansion Projects, *Metropolitan Transportation Commission (2005)* http://www.mtc.ca.gov/planning/smart_growth/tod/TOD_policy.pdf
- (2) MTC TOD Policy Implementation & Evaluation, *Community Design + Architecture (2009)* http://www.mtc.ca.gov/planning/smart_growth/tod/MTCTOD_SMARTassesment2009_120109.pdf