New Partners for Smart Growth
2012, San Diego

City Design and Urban Innovation for the New Era

Michael Freedman, Principal
February 3, 2012: San Diego

Freedman Tung + Sasaki, San Francisco
Related problems:

1. Congestion (lack of accessibility)
2. Energy waste (too much fuel use)
3. Land and resource consumption (auto-driven decentralization)
4. Climate Change (burning too much fossil fuel per person)

Critical to Any Solution:

1. Vastly Reduce Automobile Use – reduce vehicle miles travelled (VKT)
Simple Solution:

- **Complete Neighborhoods** (walkable, mixed, denser around stations)
- **TOD**: Multi-Nucleated Pattern of Development; Integrated with a Transit Network offering modern frequent service.
community dialogues
on BART Station Area Planning

WORKSHOP 2 of 3 • Thursday, December 10, 2009 • 6:30-9:30 PM
The five BART Station Location Alternatives

- Isabel / 580
- Downtown Livermore
- Isabel / Stanley
- Greenville
- Vasco
Topical Presentations on Transportation, Economics & Placemaking for BART Stations – Workshop #1, November 12, 2009
Lesson Learned: Redirect growth around transit infrastructure.

Auto-oriented Transit (Park & Ride)  
Transit-Oriented Development (TOD)
View of Conceptual Infill Station Type at Vasco with T.O.D. related to iHub

What a long-term build-out could look like (workplaces and residences)
View of Conceptual Downtown Station Type with T.O.D. on opportunity sites

- what a long-term build-out could look like
Example of a “Freeway Intercept” Type of Station

Pittsburg/Bay Point BART Station

Photo: Microsoft Corporation
Table discussions of priorities, benefits, and concerns related to station types – Workshop #1, November 12, 2009
Table discussions of matching station types with community goals – Workshop #2, December 10, 2009
Tables reported back their consensus on priorities, benefits, and concerns related to station types, and preferred station pairings – Workshops #1 & #2
Workshop Groups on Station Pairings

Table Group Worksheets – Preferred Station Pairings and related notes by Groups

1 unanimous table group choice

- Isabel/Stanley - Greenville
- Isabel/580 - Greenville
- Downtown - Greenville
- Downtown - Vasco
- Isabel/580 - Vasco
- Downtown - Greenville

= 1 unanimous table group choice

- Downtown - Greenville
  - 1/2
  - Autos off freeway sooner; economic growth for downtown; underground down Portola for Downtown.

- Downtown - Vasco
  - 1/2
  - Underground down Portola for Downtown.
  - Vasco needs to work as a freeway type station; Downtown needs to be underground.

- Isabel/580 - Vasco
  - Vasco does not meet the community goals.

- Isabel/580 - Downtown
  - 1/2
  - Meets intermodal transportation needs; economic vitality; needed access to Las Positas College; Isabel may not meet residential goal.

- Isabel/580 - Greenville
  - Redundant, overkill on freeway stations; deals best with commuters.

- Isabel/Stanley - Greenville
  - Least traffic impact and least economic development.

- Downtown - Greenville
  - Foot traffic; economic development.
  - Economic vitality.
  - Underground to Downtown.

- Downtown - Greenville
  - Foot traffic; economic development.

- Downtown - Greenville
  - Foot traffic; economic development.

- Downtown - Greenville
  - Foot traffic; economic development.

- Downtown - Greenville
  - Foot traffic; economic development.

- Downtown - Greenville
  - Foot traffic; economic development.

- Downtown - Greenville
  - Foot traffic; economic development.
Planning Commission Recommends BART to Downtown and Vasco

By The Independent

Livermore Planning Commission voted unanimously last week to recommend extending BART to Livermore via a downtown station near the present ACE terminal and a station at Vasco Road just north of Lawrence Livermore Lab.

In so doing, they followed the recommendations of City staff, who examined five proposals for station locations, three proposals for maintenance yards and 10 potential track alignments that had emerged from previous studies, public hearings and community workshops.

The Planning Commission’s recommendation is scheduled to be taken up by the Livermore City Council on April 26. BART itself is expected to certify its environmental impact statement and choose a preferred track alignment June 24.

Livermore residents have been paying BART taxes for half a century. The absence of a train extension to the east end of the Livermore Valley has been a source of irritation and cynicism to local residents, particularly as San Joaquin and Livermore Valley populations grew and local traffic on Interstate 580 became one of northern California’s two most persistent bottlenecks.

As the years have passed and land use planning has grown more sophisticated, BART’s anticipated effect has evolved beyond freeway relief to a more comprehensive array of benefits, such as connecting city with city, improving the mobility of residents, stimulating economic development near station sites, reducing greenhouse gas and connecting with other transportation systems like the Altamont Commuter Express.

The costs are also seen in more complex terms, ranging from dollars to noise, property encroachment and environmental impact.

The BART route recommended by the Planning Commission follows I-580 east from the Dublin-Pleasanton station to Livermore’s East Airway-Portola interchange, where it dives underground and angles southeast beneath Portola and city
Council Backs Downtown, Vasco Stations

By The Independent

The Livermore City Council voted unanimously to recommend that a BART extension to Livermore go underground through the downtown and at grade to Vasco Road.

If funding could not be obtained for a downtown station, the council’s vote included the recommendation to extend BART to Vasco Road. A Vasco station would be near the national laboratories and the area where Livermore anticipates that a large number of jobs will be generated at the i-Hub. The state has designated Livermore as an i-Hub, a center for innovation.

The final decision on a BART extension alignment will be made by the BART board. The decision is expected to be made in June.

The recommended route, known as 2B, follows I-580 east from the Dublin-Pleasanton station to Livermore’s East Airway-Portola interchange, where it goes underground and angles southeast beneath Portola and city streets to the location of the current Altamont Commuter Express (ACE) station at the downtown transit center.

From there it turns east and rises back to the surface along the Union Pacific Railroad corridor leading to its terminus on the east side of Vasco Road. A maintenance yard would be constructed at the Vasco site.

The selected route was that recommended by staff.

Staff told the council that other alignments were unfundable due to various constraints that would not allow the city to meet the criteria need to gain money to build the extension. Among those is a requirement for housing. The MTC, which makes spending decisions, requires 3850 existing or planned housing units within a half mile of a station. With the 2B option, the required housing could be split between the downtown and Vasco sites. “Without the housing, the project will not be funded,” declared city traffic engineer Bob Vinn.
BART picks downtown Livermore route for rail extension

By Denis Cuff
Contra Costa Times
Posted: 07/01/2010 03:06:47 PM PDT
Updated: 07/01/2010 05:31:58 PM PDT

The BART board took a step Thursday toward extending rail service to Livermore when it selected a project route that calls for one station in the city’s downtown and a second one farther east along Vasco Road.

Selection of the rail alignment — backed by the Livermore City Council — was part of the board’s 8-0 approval of the initial environmental impact report on the 11-mile extension from the Dublin-Pleasanton station.

The council’s Wednesday action enables BART to ramp up efforts to buy land for the route, and seek federal, state and county financial assistance for the $3.8 billion estimated cost.

"This is a historic day for Livermore," said BART Director Joel Keller, of Brentwood.

Some critics of the route argued BART should keep the extension along Interstate 580 because it’s cheaper, provides convenient access to freeway users and avoids having to tear down Livermore homes.

"There is no reason at all to go downtown," said former BART Director Robert Allen, of Livermore.

But Livermore leaders said bringing BART to the city center would boost the revitalization of the downtown and promote compact growth near a transit hub.

"The option for downtown and Vasco is the best spot for serving Livermore residents and encouraging transit-oriented development," said Donald Miller, a former Livermore mayor.

The chosen route would follow I-580 to East Airway Boulevard and Portola Avenue. From there, it would continue as a subway along the East Airway Boulevard-Portola Avenue-Junction Avenue corridor to an underground downtown station near the Altamont Commuter Express station-transit center.

The tracks then would rise to ground level along the existing Union Pacific Railroad corridor, ending at a station near
Opponents of downtown Livermore BART petition to keep tracks near freeway

By Jeanine Benca
Contra Costa Times
Posted: 01/21/2011 03:11:39 PM PST
Updated: 01/21/2011 05:18:54 PM PST

LIVERMORE -- A group dedicated to derailing plans for a BART extension through downtown Livermore took a step forward this week.

Opponents of the proposed route filed a notice Thursday with the city clerk's office of their intent to circulate a petition requesting an initiative be placed on the ballot.

The initiative proposes amending Livermore's general plan "to more fully reflect the community's desire that any future BART extension to Livermore (travel along) Interstate 580, with stations at Isabel Avenue/I-580 and Greenville Road/I-580."

Signed by former BART director Robert Allen and Livermore residents Peggy McLain and Linda Jeffery Sailors, the initiative also would also "make it unequivocally clear" that Livermore residents want train tracks kept on the freeway, away from homes and businesses.

The proponents could not be reached for comment Friday.

Now that the notice has been filed, the city attorney's office has until Feb. 4 to provide a ballot title and summary of the initiative. If enough signatures can be gathered, the measure will appear on an election ballot and be put to a popular vote.

Approved by BART's board in July and endorsed by the Livermore City Council, the chosen course would extend from the Dublin-Pleasanton station, travel at grade along I-580 to East Airway Boulevard and Portola Avenue, then continue as a subway along the East Airway Boulevard-Portola Avenue-Junction Avenue corridor to an underground downtown station near the existing Altamont Corridor Express station.
GOVERNMENT

BART Board Member Backs November Vote on Location of New Livermore Station

John McPartland favors downtown station but says he wants voters to make it clear what they support.

By David Mills | Email the author | February 25, 2011

The BART board member who represents the Tri-Valley says he supports a November ballot measure asking residents what option they prefer for a Livermore BART station.

"Let's settle this," said John McPartland, who oversees the transit agency's District 5. "I'm not trying to start a fight with anyone, but for us to go forward we need to speak with a single political voice. Right now, we are not."

McPartland's comments were sparked by a petition drive begun last week by a citizens group, Keep BART on 580.

The organization opposes a new BART station in Livermore's downtown area. They prefer the station be built along the Interstate 580 corridor or in the Isabel Avenue region.
Council Adopts BART 580 Initiative

Posted: Saturday, July 16, 2011 12:00 am

The Livermore City Council voted to adopt the Keep BART on 580 initiative.

The vote was 3 to 2. Doug Horner and Jeff Williams were opposed.

The council had three options. One was placing the initiative on the November 8 ballot, a second adopting it outright, and third, placing the initiative on the ballot along with a companion measure that would address concerns raised by supporters of the initiative.

The initiative states that the city must support policies to promote a BART extension along I-580 with stations at Isabel and Greenville. The council does not decide where the extension will be in Livermore. That determination is up to the BART Board of Directors. Last year the directors supported an extension to Livermore with stations in the downtown and at Vasco Road. That decision led to the initiative.

Williams supported placing the initiative before the voters. Both Horner and Williams strongly advocated keeping the downtown-Vasco Road alignment. Horner, in particular noted, that the 9212 report demonstrated that downtown-Vasco represented the best option.

The 9212 report was prepared to analyze the potential impacts of the initiative. The study looked at such issues as new air quality guidelines and how transit oriented development might fit at various station sites.

The council allocated up to $250,000 to pay for the study. Although the final bills have not yet been submitted, the final costs of the study is estimated at around $195,000.
We need a basis for a wider consensus: core understandings that we can *enthusiastically* agree upon, and re-invest in

To serve as a springboard for the coming wave of prosperity
Complete Neighborhoods, TOD = Restructuring of Suburbia
El Camino Real

El Camino Real Today
The **Consensus**

The system by which we build American cities **relies on a shared set of ideas** among financiers, developers, planners, architects, engineers, and citizens, regarding how to build.
The Modernist City

The Basis of Our Half-Century Consensus
Codified in 1933 in the Charter of Athens
4 Categories of **Use**: housing, work, recreation and transport (and *divers*)

Each category: standardized activities housed in special building type.

**Pomona, California**
The dominant idea has been to define the city as areas of separate land use.
Housing Subdivisions

Made entirely of residences
Segregated by Income Class
Business Parks
(“Industrial Parks,” “Office Parks,” “Technology Parks”)
“Shopping Centers”

Shopping Malls, Strip Centers, Big-box Retail
Roadways and utilities

Miles of Pavement Needed to Connect the Separated Uses

Underground: Miles of Pipe and Conduit to Distribute Municipal Services

Very Costly Level of Public Expenditure
The city is growing; we continue to make “more city”
The Consensus about how to build is rapidly deteriorating

Forces of Change undermining the suburban sprawl model
**Traffic Congestion**

In 2001, 85% of all trips were by car.

Vehicles/population has been increasing; adds to congestion.

*Figure 6*

Proportion of Trips by Mode

- School bus: 1.7%
- Walk: 8.8%
- Transit: 1.5%
- Personal vehicle-single occupant: 37.8%
- Personal vehicle-multiple occupant: 48.9%

Source: The 2001 National Household Travel Survey, daily trip file, U.S. Department of Transportation.

*Common Index*

Source – Nationwide Personal Transportation Survey


- Vehicles
- Drivers
- Workers
- Households
- Population
Long Commutes

In 1950 People Traveled Around 10 miles per day

Today People Travel Over 40 miles per day

Red Color indicates urbanized areas
NO CHOICE: The way we design the new areas of our cities forces us to drive to get access to what we need.
Rapid Consumption of Land, Water, Species Habitat
Los Angeles Region
2000 Urbanized Area

Source – 2000 US CENSUS
Los Angeles Region Projected 2025 Urbanized Area

Source – Jonathan Barnett
Los Angeles Region Projected 2050 Urbanized Area

Source – Jonathan Barnett
Role of Built Environment in Green House Gas Emissions

When we address CO2 and other GHG emissions, the built environment will play a major role, if not the leading role.
Transportation is 40-50% of our CO2 Problem

Figure 4: 2007 Transportation Sector Emissions Breakdown

- Cars/Light Duty Trucks: 63.8%
- Ships/Boats: 19.4%
- Aircraft: 6.3%
- Med./Heavy Duty Trucks: 7.9%
- Motor-Homes/Motorcycles: 0.4%
- Buses: 1.9%
- Locomotives: 0.2%

Personal driving is about two thirds of the transport sector CO2

Source: BAAQMD
...and transportation’s contribution is getting worse

California VMT in Billions of Miles per Year


Source: MTC
The Approach of Peak Oil
(Oil Price Volatility)
Location Matters!

Location Efficient Environment:
- 59% Disposable Income
- 32% Housing
- 9% Transportation

Average American Family:
- 32% Housing
- 9% Other
- 11% Insurance
- 13% Food
- 19% Transportation

Auto Dependent Exurbs:
- 43% Disposable Income
- 32% Housing
- 25% Transportation

Source: Center for TOD Housing + Transportation Affordability Index, 2004 Bureau of Labor Statistics
Segregated land uses + arterial roadway system – failing as a habitat

Forces Undermining the Viability of the Modernist City:
• Poor Accessibility
• Rapid Consumption of Farmland, Natural Resources
• Acceleration of Climate Change
• Wasteful of Diminishing Fossil Fuel Reserves
• Increasingly expensive for families
Nationally, “housing prices in walkable urban places have about a 40-200 percent (three-fold) premium over drivable single-family housing. . . .

. . . reflecting the dramatic shift in values that has taken place”
DRIVABLE SUBURBAN
(SPRAWL)

WALKABLE URBAN
Just as we in real estate got really good at building drivable sub-urban development...the market changes on us.

Pendulum Swings in How America Invests

The Beginning of Another Structural Shift
The Current Crisis is accelerating the shift away from the suburban sprawl model of development.
"Many malls and strip centers will be bulldozed for new town center projects and mixed-use development”

**Dream about the Future.** Next-generation projects will orient to infill, urbanizing suburbs, and transit-oriented development. Smaller housing units—close to mass transit, work, and 24-hour amenities—gain favor over large houses on big lots at the suburban edge. People will continue to seek greater convenience and want to reduce energy expenses. Shorter commutes and smaller heating bills make up for higher infill real estate costs. “You’ll be stupid not to build green.” Operating efficiencies and competitive advantage will be more than worth “the minimal extra cost.”
To thrive economically and ecologically suburban cities must be restructured to realign with these forces of change

(You would think this would be very obvious by now)
And yet, despite a devastating breakdown in the functionality of the Modernist model, and despite significant consumer demand for walkable urbanism,

the Modernist City remains a highly resilient model for new development.
Why does this form of growth have such a strong hold on us?
Is it possible to more rapidly deploy the kind of real significant restructuring we need now, or are cities really always very slow to change?
The Modernist City

The Basis of Our Half-Century Consensus
Codified in 1933 in the Charter of Athens
Figure 7. Industrial activity prior to the Civil War was widely distributed. The production and distribution of goods were localized, making each community virtually self-sufficient. (N.Y. State Census, 1855.)
20th Century: The Assembly Line / Taylorism

- Low-skill, repetitive work
- Specialization
- Synchronization
- Central control
Figure 7. Industrial activity prior to the Civil War was widely distributed. The production and distribution of goods were localized, making each community virtually self-sufficient. (N.Y. State Census, 1855.)
1920

POPULATION OF COUNTIES AND PROPORTION OF TOTAL COUNTY LIVING IN SELECTED CITIES (50,000 AND OVER IN 1920) - 1850 & 1920.
The prosperity machine of early industrialization grew cities and towns to a never-before-seen scale.
When the nature of Work changes, the city is entirely transformed.
The Modernist City Model

Codified in 1933 in the Charter of Athens
The idea of the Assembly Line City (City as Machine)

- Economy focused on Making and Moving Things.
- Mass production, functional segregation, specialization, top-down hierarchies of control.
CIAM Modernist City Experiment changed urban EVOLUTION to REVOLUTION
First came the homes
Development clustered close to the Train Station

Everything within walking distance: train, shops, homes
Mid-20th Century: Decentralization of American cities

- After “lid” of Great Depression & WW2 lifted, immense suburban growth and Baby Boom way of life
Roadways and utilities

Miles of Pavement Needed to Connect the Separated Uses
Underground: Miles of Pipe and Conduit to Distribute Municipal Services
Very Costly Level of Public Expenditure
When the nature of Work changes, the city is entirely transformed.
Adrian Hatfield, from Over Time: Palo Alto 1947-1980
Cities were reorganized along the **industrial principles** of specialization and segregation of function.

Institutionalized in 20\(^{th}\) Century City Zoning
The City of Standardized parts
The Modernist Experiment FIT with the new industrial economy of the Era.

New Technologies:
- Cars
- Roads
- Electrification
- Air Conditioning

Tailorism (Fordism):
- Assembly Line
- Mass Production
- Mass Consumption

Demographics:
- Uniform H/H Structure

Cheap energy
Abundant, available, accessible land.

Massive Government Subsidies
This way of building cities is now institutionalized.
Foundations of the Recent Consensus 1950 - 2007

1. The Open Road
2. Demographics – uniform household structure
3. Cheap energy
4. Abundant, available and accessible land
5. Massive government subsidies - home mortgages, strip construction, highway construction
7. Nostalgia - Recent generations of Americans learned to associate sprawl with America
Foundations of the Recent Consensus 2008 - -

1. The Open Road
2. Demographics – uniform household structure
3. Cheap energy
4. Abundant, available and accessible land
7. Nostalgia - New generations of Americans learned to associate sprawl with America
Source: America Town: Building the Outposts of Empire, by Mark Gillem
The Modernist Experiment FIT with the new industrial economy of the Era.

New Technologies:
- Cars
- Roads
- Electrification
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Tailorism (Fordism):
- Assembly Line
- Mass Production
- Mass Consumption

Demographics:
- Uniform H/H Structure

Cheap energy
Abundant, available, accessible land.
Massive Government Subsidies
Does the Modernist City format still fit the needs of today’s economic activity?
Wanted: Software engineers and food science professionals.
Assembly Line model applied to Offices
At first, many thought it was just a change in tools (rather than a complete transformation in how we would work)
. . . But the mandates of a new kind of work began to manifest fundamental organizational change

Decentralization, shared decision making, and skilled labor
What is going on?
Creativity & Innovation have become the primary wealth-generators in the new global economy.

(replacing massive mass-production of identical products and services).
Peter Drucker on the rise of the “knowledge economy:”

“The basic economic resources . . . is no longer capital, nor natural resources . . . nor labor. It is and will be knowledge.”
Creative Economy:

Tools: Knowledge, Information

The Key Driver: Creativity
(uses knowledge to develop new forms of knowledge)

The Product: Innovation
(e.g. technological product, business method, process)
The Creative Economy: Range of Industries

Table 3.1  Core Industries of the Creative Economy
(by market size in billions of U.S. dollars, 1999)

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<th>Global</th>
<th>U.S.</th>
<th>U.S. Share</th>
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<td>4</td>
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<td>$2,240</td>
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<td>42.8%</td>
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The Creative Economy: Range and Size of Workforce

FIGURE 3.3  The Growing Creative Workforce, 1900–1999
(source: Historical Statistics, 1976; Statistical Abstract, various years.)

Scientists, Engineers, Professionals AND Artists, Bohemians
Saskia Sassen: this is not just about software and design, but also about mining and agricultural industries, all industries.
“We are witnessing now is a break with the past as significant as that in the late 18th and early 19th centuries when parts of the world began the long process of industrialization.”
There is a Growing Consensus that we need to substantially improve the Design of the Parts of our Cities that house the Primary Drivers of Our Economy.
How do we nurture creativity and innovation?
What are the **physical characteristics of cities** that nurture and support creativity?

1) Environments that **foster innovation**;

2) Environments that **attract innovators**.
What are the **physical characteristics of cities** that nurture and support creativity?

1) Environments that **foster innovation**;
2) Environments that attract the “creative class.”
Investing in the Creative Economy: Focus on Individual Organizations

FIGURE 3.1 Investing in Creativity: R&D Spending, by Performer of Research, 1953–2000

(SOURCE: National Science Foundation, Division of Science Resource Studies.)
Cities, not firms, are the wellsprings of innovation

“Whereas companies tend to specialize, cities give rise to a wide variety of talents and specialties, the broad diversity of which is a spur to innovation. The City’s diversity is the true source of innovation and economic growth.”
Dense Clustering of people, productivity, talents and skills powers economic growth
The dense physical layout of cities gives them a competitive and fiscal advantage

- Density contributes to innovation by attracting young educated workers
- Average labor productivity increases with employment density
- Dense labor markets and high clustering of jobs lead to knowledge spillovers, both within and across industries
- Compact development is more cost-efficient
Research funded by the Irvine Foundation in 1998 has been repeatedly cited as the best source thus far on this question.

**Findings:**

The new basis of competitive advantage and the new nature of work requires a different kind of urban design.
Essential Principle: Provide Settings for Interaction

New Economy values vital centers

The New Economy values the vital centers of regions, towns, and neighborhoods. These centers promote the interaction, accessibility, and creativity on which the New Economy depends. Creativity is encouraged by work and living environments that allow for a lot of interaction among people. Chance encounters in hallways, restaurants, neighborhoods, and conferences lead to new partnerships and solutions to tough problems. The proximity, density, and publicness of vital centers stimulate interaction among people. Vital centers are typically filled with the kinds of places conducive to planned meetings as well as chance encounters—places to eat and drink, conference and meeting facilities, recreation space and facilities, parks and plazas, business service centers.
Essential Principal: \textbf{Innovation is fostered by providing settings that bring people together to collaborate and exchange ideas.}

- In the office and the lab
- In the conference room
- In cafes, bars and restaurants
- During breaks, recreation and leisure
- Especially while socializing
mix

Source: United States General Services Administration
The 20th Century CBD and Business Park models no longer fit the needs of the innovation economy.
To foster and to attract creativity & innovation cities must provide “Vital Centers”

- Clustering & Density
- Synergy & Mix
- Public Places

Centerless Workplace  "Vital Center"
Related problems:

1. Congestion (lack of accessibility)
2. Energy waste (too much fuel use)
3. Land and resource consumption (auto-driven decentralization)
4. Climate Change (burning too much fossil fuel per person)

Critical to Any Solution:

1. Vastly Reduce Automobile Use – reduce vehicle miles travelled (VKT)
Simple Solution:

• **Complete Neighborhoods** (walkable, mixed, denser around stations)

• **TOD**: Multi-Nucleated Pattern of Development; Integrated with a Transit Network offering modern frequent service.
What are the physical characteristics of cities that nurture and support creativity?

1) Environments that foster innovation;
2) Environments that attract innovators.
Google’s Buses Help Its Workers Beat the Rush

Taking Googlers to Work

One of the many perquisites for Google employees, known as Googlers, is a free shuttle bus service that traverses much of the San Francisco Bay Area to Google’s headquarters in Mountain View.

GOOGLE’S SHUTTLE BUS
On the map, dots represent towns in which the service has a stop.

SHUTTLE BUS STATISTICS
- 32 buses.
- 1,200 workers bused each way.
- 132 trips a day.
- 40 pickup and drop-off locations.
- 4,400 miles traveled a day.
- 230 miles of routes; by comparison the Bay Area Rapid Transit System’s rail service has 104 miles of track.

Google offers shuttle service to and from its main office in Mountain View, Calif. About 1,200 employees use the service.

By MIGUEL HELFT
Published: March 10, 2007

MOUNTAIN VIEW, Calif. — The perks of working at Google are the envy of Silicon Valley. Unlimited amounts of free chef-prepared food at all times of day. A climbing wall, a volleyball court and two lap pools. On-site car washes, oil changes and haircuts, not to mention free doctor checkups.
The Mission District,
San Francisco
The “creative class” craves centers

Centers are places with: Density - Synergy - Mix
CEOs for Cities: Young, College-Educated Population Booming in Urban Centers

Number of 24-35 year-olds with a four-year degree living close to metro centers has grown 26% in the last decade

[Chicago, IL – April 1, 2011] – Over the last decade, urban centers have increasingly become the residential destination of choice for young college graduates, according to a new analysis by CEOs for Cities.

In 2000, young adults with a four-year degree were about 61% more likely to live in close-in urban neighborhoods than their counterparts with less education. Now, these well-educated young adults are about 94% more likely to live in these close-in urban neighborhoods.

“The market for America’s downtowns and close-in neighborhoods just keeps getting stronger,” said Carol Coletta, president and CEO of CEOs for Cities. “Even Cleveland and Detroit, which for years have watched their populations dwindle, are seeing increases in the number of well-educated young adults in their close-in neighborhoods.”

Neighborhoods within three miles of central business districts have seen their population of college-educated 25 to 34 year olds grow by an average of 26%, while the outlying neighborhoods saw a 13% growth rate. In two-thirds of the nation’s 51 largest cities, the young, college-educated population grew faster in the three-mile urban core than in the rest of the city.
Creative Class preferences

Streetlife

Density

Transit

Public Spaces
Necessary Elements of an Emerging Consensus

To get out in front of the changes and use them to consolidate our gains . . .
1. The Business Park is a dead end. 21\textsuperscript{st} Century workplace districts will provide settings to foster innovation and will match the preferences of the most sought-after employees.

Early adopter cities/districts that provide talent-magnet districts will have prime-mover advantage.
INSIDE THE WORKPLACE, The Old 20th Century Model is already changing . . .
to new office environments that foster innovation.
21st Century Knowledge Workers need environments that foster collaboration to produce creative ideas, products and processes.
“The development of Urban Typologies and Neighbourhood Planning in office environments is a reaction to the pent-up demand for more meaningful work places...”

Nicola Gillen, DEGW
Next to the Googleplex: North Bayshore’s Business Parks
The Workplace *District* remains out of synch

Separate Precinct
• Usually segregated in type of work: office, R+D, manufacturing
• No activity focus or center - only auto-oriented
• Fabric of *large blocks* and *wide roads* necessitated by them
• Buildings surrounded by *parking & landscape* (plenty of open space but no public space).
tions. Proximity to anything didn’t matter when you could drive easily to almost everywhere. And exhilarating mobility over long distances enabled more people to own more land—and build larger houses—at the ever-expanding suburban fringe. Employers sought to build suburban office islands, set apart from housing, retail, and transit.

That’s over. What’s next?
To foster and to attract creativity & innovation cities must provide “Vital Centers”

Clustering & Density
Synergy & Mix
Public Places

Centerless Workplace

“Vital Center”
The Old Model:
Policy for Separate Precinct
The New Model:

District Center
Workplace Core
Mixed-Use Transition Areas
Residential Transition Areas
20th Century: Self-Containment, All Activities “Under One Roof”
21st Century: Dense Collaborative Network of Partners, Suppliers, Customers

Primary Network of Workplace Activities
Typical Business Park:
little variation
Range of building types

Mixture of workspace types, costs, tenancies, sizes, in proximity

Quality Medium Sized Space

New lower cost, small scale space

Creative rehab – lower cost spaces

Established Corporate Space
• Publicness: Activity Core

Traditional Business Park approaches:

No activity core – food use inside buildings, or located incidentally

Insertion of a commercial strip center
• Publicness: Activity Core

A workplace district may have a **main Activity Core** and/or a **series of local cores**, depending on its structure.

4th Street retail cluster: **District Activity Core** for West Berkeley

“Can’t Fail Café” across from Pixar Studios and City Hall in Emeryville: **local Activity Core**
The New Model: Settings for Interaction, Serendipity
Example of incrementally transitioning urban Workplace District: Emeryville

Hollis and 59th Streets, Emeryville before 1993:
Transitioning heavy industrial area with residential edge
Hollis and 59th Streets, Emeryville today:
Flourishing creative workplace/mixed use infill district
The Business Park Model: Plenty of Open Space but no “Public” Space, no interaction; functions separated

Typical Business Park Setting
The Emerging 21st Century Workplace District Model:
Settings for Convenience, Interaction, Serendipity

SOMA near South Park, San Francisco
Adding a few floors to the same model alone will not get us where we need to go
We are starting to see evidence of workplace “Vital Center” evolution in the most innovative districts and cities.
Creative Workplace: In urban center, dense, public space, activity & mix at ground level.

Sony’s Digital Media City
Seoul, South Korea
(2000 companies expected by 2015)
Redevelopment opportunities are common in Bay Area’s old business parks.
Business Parks: what would a reorganized format look like?

Existing conditions in a classic Business Park format
Business Parks: what would a reorganized format look like?

At similar intensity, a retrofitted activity-focused concept
The Workplace District of the 21\textsuperscript{st} Century
Built example: Central Yuba City

1992: 130 acre vacant cannery site – addressed with a Specific Plan
Instead of a Business Park, workplace buildings define streets and an activity core.
From 1985 to 1987, the Rand McNally Livable Cities Survey named the city the “Least Livable City in America” of 329 cities evaluated. A big part of the problem was the 130 acres of underutilized or vacant industrial land located in the heart of the city and pictured here.

The abandoned steel mill in 1990
Today, high value medical employment activates a Town Square and Boulevard
Business Park: Higher intensity, innovation-oriented format

Activity cores, mixed uses, walkable blocks, commute transit, structured parking
2. Downtown is no longer peripheral to primary economic activity; the prospects for downtown are greatly enhanced; in fact urbane town centers are critical to the New Prosperity.
The emerging “New Workplace” ecosystem:

• City and Regional Centers (Downtowns)
• Workplace-focused districts
  • Revitalized Business Parks
  • Redeveloped Industrial Districts
• Institution-anchored districts
  • Educational Campuses
  • Medical Districts
Downtowns were once the central place for office-type work in suburban cities.
Downtown Mountain View, CA

Served by Caltrain, VTA Light Rail

Castro Street shops

Fenwick & West (expanded from Stanford Bus. Park)

Parking facilities

Civic Center

Transit & TOD Housing
(Mountain View) Downtown... ...attractive to younger workers and entrepreneurs, the segment that is often on the cutting edge of various tech fields.

...the Downtown is serving as de-facto “incubator” space for the larger Silicon Valley region and thus as a valuable economic development asset for the City.

Downtown Mountain View Economic Study and Development Strategy (June 2011)
Economic & Planning Systems, Inc.
Downtowns Get a Fresh Lease
Suburbs Lose Office Workers to Business Districts, Reversing a Postwar Trend

BY ANTON TROIANOVSKI

As the market for office space shows signs of recovery, the suburbs vacated a net 16 million square feet according to data firm Reis Inc. In the first three quarters of this year, businesses in the suburbs vacated a net 16 million square feet. The housing bust clobbered the suburban office market while government and big banks have helped downtowns weather the storm.

The housing bust clobbered the suburban office market while government and big banks have helped downtowns weather the storm.

DOWNTOWNS AND SUBURBS GO DIFFERENT WAYS

In contrast to the last recovery, suburban office space is still emptying even as downtown markets stabilize.

Quarterly change in occupied office space, in millions of square feet:

- Central business districts
- Suburbs

CHICAGO

CBD Suburbs
-0.4 -3.3 0.3%

WASHINGTON, D.C.

CBD Suburbs
+3.0 1.0% 0.5%

PHOENIX

CBD Suburbs
+0.2 -4.3 4.0% 6.7%

CHARLOTTE, N.C.

Change since January 2009:

Net change, millions of square feet

Central Business District
Suburbs

+0.8 5.1%
-0.2 0.8%

Source: Reis, Inc.
The Reviving Downtowns
Smaller cities and towns are remaking themselves as hubs for the knowledge economy.

Map illustration by Bryan Christy

Omaha, Nebraska

CASE STUDY:
It's only the 42nd-largest city in the US, but over the past two decades, Omaha has been transformed into one of the Midwest's most vibrant cultural hubs. Here's how the revival happened, starting in the '90s.

PHASE 1 1991-1994
It all started with better food. For decades, Omaha had been known for its bland, soulless downtown. In the early '90s, a group of local chefs and restaurateurs came together to create a culinary revolution. They started farmers' markets, brought food trucks to the city, and started a movement to create a more vibrant downtown.

PHASE 2 1995-2001
The next step was the arts. The city's downtown revitalization effort was spearheaded by the Opperman Center, which transformed an old department store into a cultural hub. The center hosts a variety of events, from art exhibitions to music concerts, and has become a anchor of the city's cultural scene.

PHASE 3 2003-2007
In 2003, the city began to focus on the downtown area. A new performing arts center was built, and a new library was opened. The city also began to attract more tourism, with the opening of a new convention center and the renovation of the old zoo into a new children's museum.

PHASE 4 2008-2010
In recent years, Omaha has continued to grow and evolve. The city has been able to attract new businesses and residents, and has become a more diverse and dynamic place. Today, Omaha is a city that is no longer just known for its meatpacking industry, but for its lively downtown, vibrant arts scene, and growing sense of community.
Smaller cities and towns are remaking themselves as hubs for the knowledge economy.

Livable cities draw creative people, and creative people spawn jobs. Some places you’d never expect—small cities not dominated by a university—are learning how to lure knowledge workers, entrepreneurs, and other imaginative types at levels that track or exceed the US average (30 percent of workers).
“Highly Urbane Places Conducive to Face-to-Face Interaction”

Table I: Fastest appreciating residential real estate by metro area (September 2007)

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<th>5-YR.</th>
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<td>Wenatchee, Washington</td>
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<td>Provo-Orem, Utah</td>
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<td>3</td>
<td>Grand Junction, Colorado</td>
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<td>Gulfport-Biloxi, Mississippi</td>
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<td>5</td>
<td>Myrtle Beach-Conway, South Carolina</td>
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<td>Boise City-Nampa, Idaho</td>
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<td>Corvalis, Oregon</td>
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<td>Asheville, North Carolina</td>
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<td>9</td>
<td>Las Cruces, New Mexico</td>
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<td>10</td>
<td>Miami-Miami Beach, Florida</td>
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<td>Mobile, Alabama</td>
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<td>Lynchburg, Virginia</td>
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<td>Scranton-Wilkes-Barre, Pennsylvania</td>
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<td>41.3%</td>
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<td>15</td>
<td>Baton Rouge, Louisiana</td>
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<td>16</td>
<td>Flagstaff, Ariz.-Utah</td>
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<td>17</td>
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<td>Nashville, Tennessee</td>
<td>8.3%</td>
<td>33.4%</td>
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<td>20</td>
<td>Wausau, Wisconsin</td>
<td>7.8%</td>
<td>29.9%</td>
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</tbody>
</table>

Data courtesy of Hanley Wood
Innovation Goes Downtown

From Barcelona to Seoul, urban science parks are being built to lure the best minds and the industries of tomorrow.

Say "science park" to most Americans and they probably will think of beautifully landscaped campuses of low-rise buildings on the outskirts of a city, where researchers commute to their cubicles each morning and fight the evening traffic to return home. For 50 years the prototype was Research Triangle Park—an 11-sq.-mile district snuggled into the piney hills outside of Durham, N.C., with such multinational tenants as IBM (IBM) and GlaxoSmithKline (GSK).

No longer. Today's high-tech meccas are being constructed deep inside major cities. Michael Joroff, an urban-planning guru at Massachusetts Institute of Technology, dubs them "new century cities." Their goal, says Joroff, an adviser to projects in South Korea, Britain, Sweden, and Abu Dhabi, is to "kick-start high-priority industries with new spaces where companies and universities can work together and develop the next generation of workers."

Planners also hope to tap into the "new urbanism" movement by offering plenty of amenities where scientists, entrepreneurs, and creative types from an array of industries can intermingle and, with a bit of serendipity, cross-pollinate ventures. "To be a neurocenter of the knowledge economy, fiber and telecom are not enough," says Josep Miquel Piqué, 22@Barcelona's chief executive. "You also need things like good food, wine, and aesthetics."
3. Auto-mobility is no longer central. On the other hand, Transit + Density is not enough. Retrofitting central districts to attract innovative people is the critical strategic city planning activity. Think: Transit, Density and Amenity!
Cheonggyecheon Restoration Project, Seoul
The 21st Century City must balance transportation infrastructure with enhanced “Place-Making”

Before

After

Seoul: Chongyecheon

To be successful in the 21st century, cities are replacing the old industrial infrastructure with the infrastructure of the creative economy.
Leaders of competitive cities know they must work hard to attract and retain talented people with urban and cultural amenities and a high quality of life.
New York: Broadway

The approach reflects the enhanced role of public amenities in growing urban economies to position cities to attract high-value-added growth.
What is Going On?
Leading City Decision-Makers are Shifting their Priorities to accommodate the Innovation-Driven Economy
Creative Class preferences

Streetlife
Density
Public Spaces
Transit
The Creative Economy Requires Spaces of Interaction and Exchange
Cities large and small are shifting away from automobility and towards amenity in public space

Downtown Livermore in 2002: underperforming business and community image, low activity, not well connected to surrounding wine country
First Street (CA-84) in 2004
First Street (CA-84) in 2004

“Flexible Dining Zone” streetscape
First Street sidewalk today (with flexible zone café space)
1st St. & Livermore Ave: Traffic island becomes a town green
Amenitized public realm:

“Winery Patio” streetscape, new plazas & interactive fountains
Planning process defined locations and types of desired new investment.
New Investment: Shops, Offices, Residences, & Anchors
The Creative Economy Requires Spaces of Interaction and Exchange

Silicon Valley, California

before

after
YuMe moves to bigger Redwood City HQ

San Francisco Business Times - by Patrick Hoge

YuMe, a video advertising technology company which in February raised $25 million in venture capital, moved into larger headquarters this week in Redwood City to accommodate growth.

The 6-year-old company is moving into the Foresters Hall of America, a newly renovated downtown landmark built in 1913 that has been a civic center, clubhouse, theater, music hall and wedding pavilion in former days.

“Having a beautiful new headquarters just a few blocks from Caltrain will allow us to continue to attract and retain top talent from across the Bay Area,” said YuMe CEO Michael Mathieu.

Founded in 2004, YuMe has 100 employees, nearly half of them based in Redwood City, the rest spread among offices in New York, Chicago, Los Angeles, Boston and Chennai, India.

The company has plans to add 26 employees in the United States by the end of the year in varied capacities and locations. The old office in Redwood Shores had just over 8,211 square feet, while the new space has 12,100 square feet.

Patrick Hoge covers technology for the San Francisco Business Times.
Contact him at phoge@bizjournals.com or (415) 288-4949.
Read his blog postings at Bay Area BizTalk.
4. **The retail is the precious city building commodity.** Urban vitality is what will sell homes and draw the “talent.” *(Re)position the retail strategically.*

Wake up to the fact that the most important and most difficult decision in the design of the suburban metro area is where (and how) to build the retail.
Existing Condition/Old Model: The Commercial Strip
DOWNTOWN STRIP CORRIDOR

Investment moves to

Freeway

Investment moves to

SHOPPING CENTERS

STRI P COR RIDOR

Investment moves to

DOWNTOWN
These crossroads-located centers have been draining economic vitality from retail properties located everywhere else.

(and there is not much physical value in place)
1986 Tax Reform Act

The primary financial conditions underpinning strip development evaporate

(leaving a huge glut of cheap commercial buildings in place)
Q: How much retail can be supported on the corridor?

- 1,124,250 square feet demanded
- 1,645,500 square feet supplied!
Disinvestment  

*Disadvantageously located properties*
Disinvestment

Disadvantageously located properties
Decreasing Reinvestment; Decreasing Rents
Disinvestment along a growing number of suburban strip corridors is fairly advanced.
2001

“The future of strip development is becoming less certain.

- Urban Land Institute
To realign strip corridors with the contemporary market: the community must orchestrate the restructuring of land use & development, and the design of the thoroughfare . . .

5.2 miles; 832 properties
The Old Model: Has Fallen Out of Favor
The New Model: Clustered at Primary Crossroads
... in combinations and formats to match targeted trade area populations.
The Optimum Supportable Hierarchy of Centers

The pattern of centers sets up the primary framework for the restructuring plan.
Existing Zoning – Retail Entitlements

Supportable Pattern of Centers
Supportable Pattern of Centers

Pre-existing Zoning – retail permitted

Pre-existing Zoning – residential permitter
Pre-existing Zoning – residential permitted

Pre-existing Zoning – retail permitted

Supportable Pattern of Centers and Segments
Residential Development Along Brentwood Boulevard
Wide Range of Development Types

“Grand Buildings on Display”
Things to Avoid: “Too Monolithic”
El Camino Real Today
The pattern of centers sets up the primary framework for the restructuring plan.
Nodes of accessibility that are exciting urban places of arrival and vitality

Downtown Redwood City Precise Plan - “Depot Circle”
5. The old focus on Land Use and Roadway Capacity are getting us nowhere. The tools we use to think about and plan the growth of our cities are hampering innovation.
The urban products of the last half century have demonstrated that eliminating the actual pattern of buildings and spaces from our primary planning considerations results in very unsatisfying cities.
Develop tools that help us understand the existing pattern of physical urban development – the neighborhoods, districts, strip corridors, and open spaces.
Planned pattern of centers, districts and open spaces.

“Pomona Tomorrow” – draft Pomona General Plan