

# Thinking About the Future: Sustainable Transport

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# Changes will be Uneven

- CA at 50 (2050 = 50 M?) what will be the quality of life?
- Europe, Japan: slow/no growth; shrinking cities?
- The rest of the world: megagrowth; equity and a chance to get ahead?

# Sustainable Transportation

- **Economic Sustainability**
  - Cost effective / profitable
  - Affordable to users
  - Each mode pays for its social and environmental costs
- **Social Sustainability**
  - Provides access for all
  - Respects / responds to differences in needs, preferences
  - Supports healthy communities
- **Environmental Sustainability**
  - Leaves no burdens for future generations
  - Protects/enhances human health
  - Reduces greenhouse gas emissions – climate change
  - Respects other species' existence rights

# The Dilemma in Developing Countries

- **Rapid growth in personal vehicle use**
  - Hyper-congestion with low levels of motor vehicle ownership
  - Burgeoning fuel use, severe pollution and greenhouse emissions
  - High crash rates
- **Worsening condition of urban buses, rail**
  - Caught in congestion, slow, unreliable
  - Poor quality of service, maintenance, little comfort, convenience
  - Growing reliance on “informal” transit – pros and cons
  - Weak policies towards customer satisfaction
  - Exceptions – Curitiba, Bangalore, Hong Kong
- **Dangerous conditions for cyclists, pedestrians**
  - Still the major means of travel for most BUT
  - Walking, cycling pushed out/unsafe as vehicles claim the streets

# What doesn't work: Multimodal Congestion, China

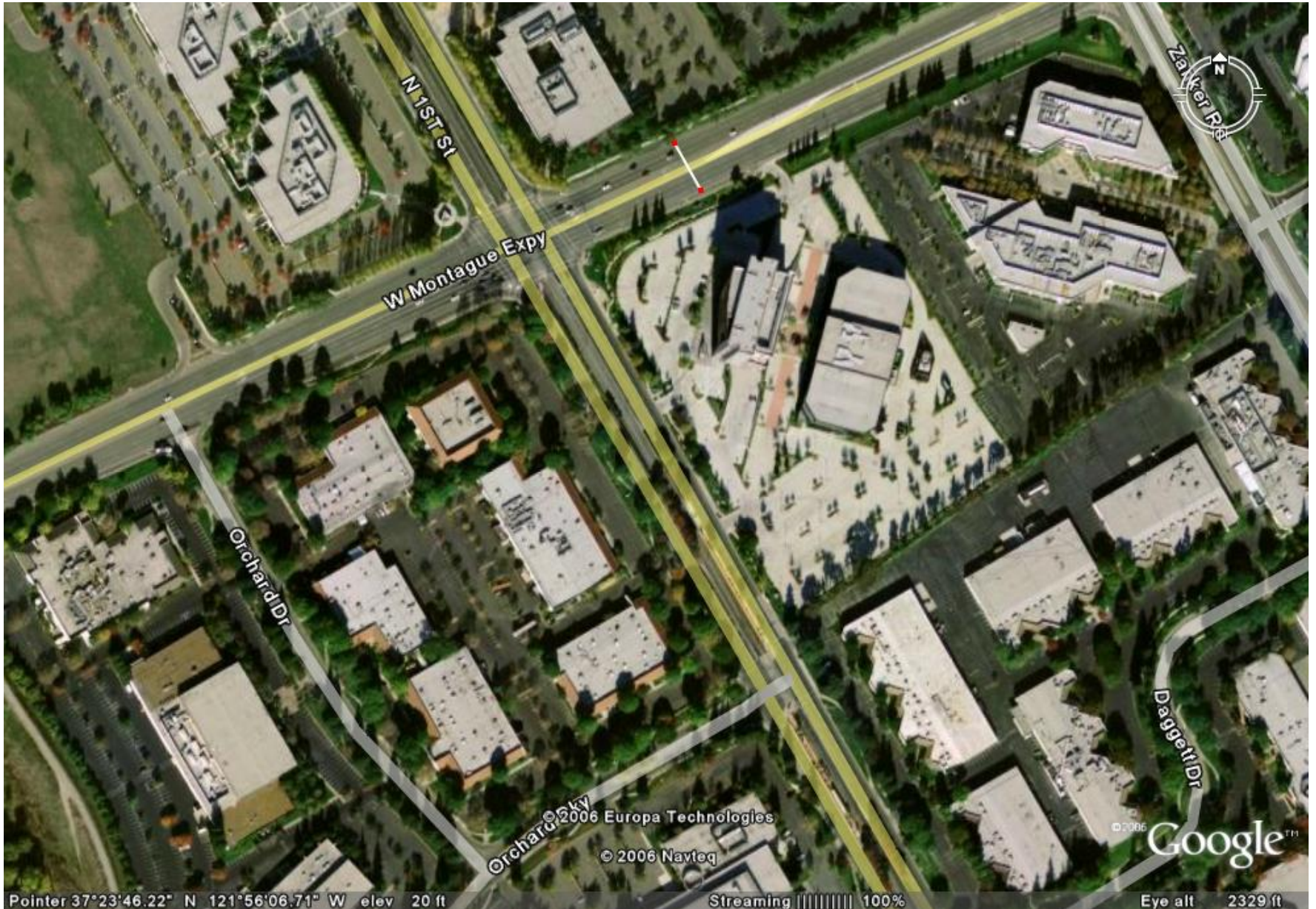


# The Dilemma in the US

- Rapid expansion of metro land area even in regions with stagnant population
- Densities too low for transit to work well (but many still want rail)
- Congestion on many corridors, including suburban ones
- Not much enthusiasm for new highway building, despite congestion

# What Doesn't Work: Transit in Sprawl

## Orchard Park Station, San Jose



# Moving Forward

- Will need technology, policy, planning, demonstration projects with successes
- Technology: new fuels, vehicles, operations
- Policy: finance, pricing, land use, multimodal transport
- Planning: integrated transportation-land use-environmental plans with implementation strategies
- Demonstration projects: sustainable community projects with mixed uses, transit and pedestrian orientation at major destinations/nodes, mix of uses, high livability – reuse, infill, new areas