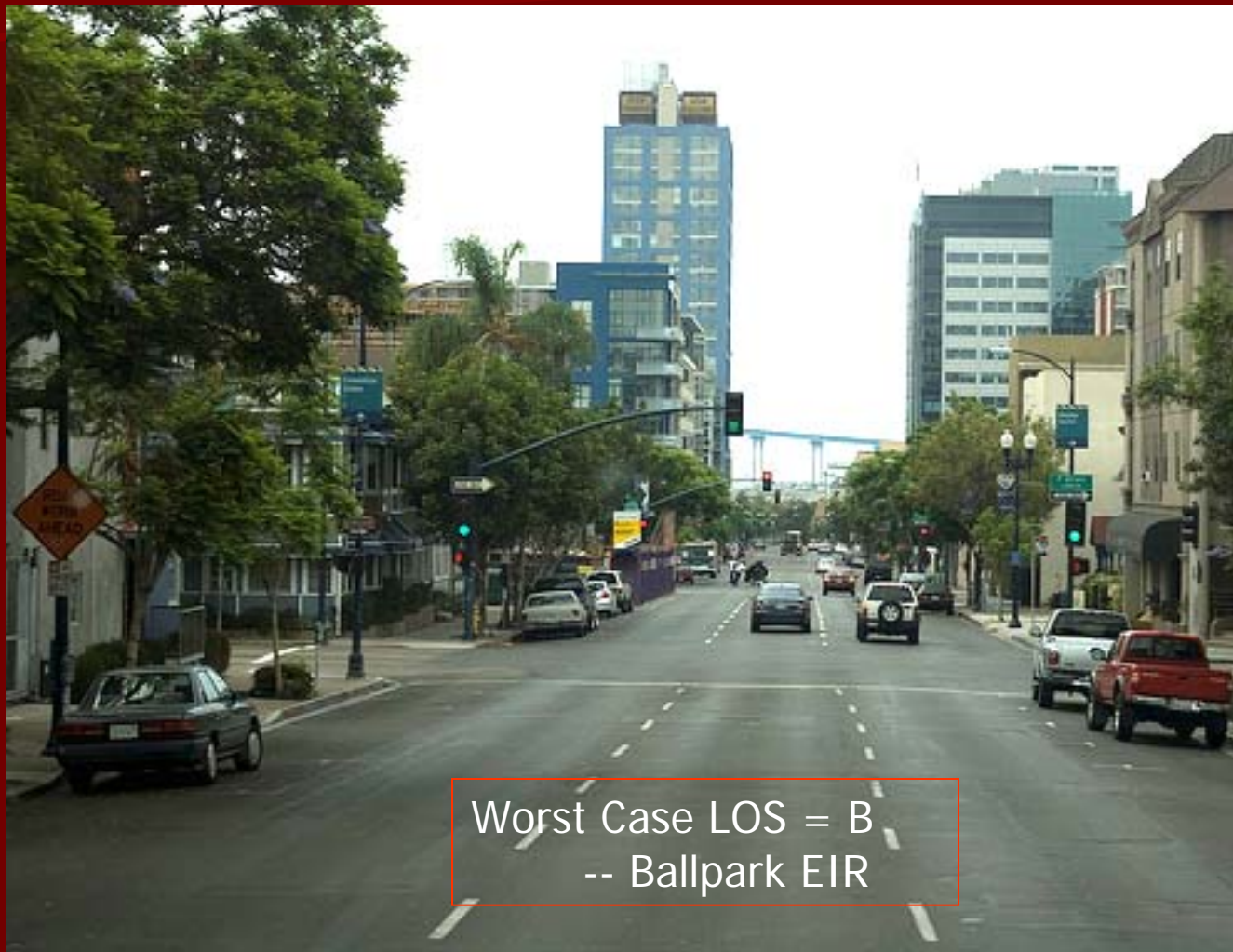


Rethinking Street Design



Andy Hamilton

Old Paradigm: Streets as Single Purpose Spaces



Level of Service

- Grades Traffic Flow A-F
- A = free flow; F = stop 'n' go traffic
- "Maintaining LOS" = Wider streets, lower density, ever increasing vehicle use
- Significant Driver of Sprawl and CO₂ emissions
- Primary cause of traffic fatalities

Where's the Pedestrian?



Where's the Pedestrian?

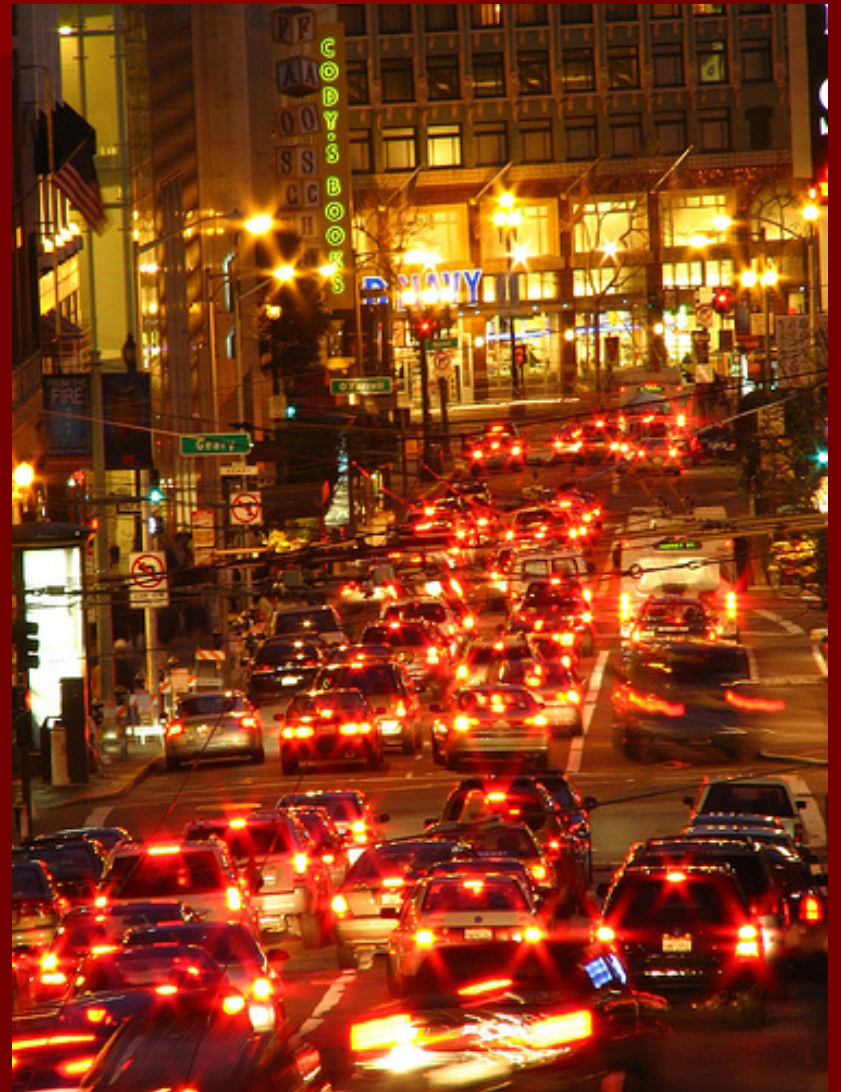


ReThink: Traffic Impact Analysis

- March 18- New CEQA Greenhouse Guidelines Became Effective
- Appendix G – Transportation impact metrics are up to the reviewing agency
- Accommodating traffic no longer paramount
- “Parking impact” eliminated from checklist
- 2010 HCM – Multimodal Level of Service

San Francisco's Approach

- Reduce vehicle trips, not relieve congestion
- Mitigation may be pedestrian, bicycle, or transit improvements, carpooling, telecommuting, etc.



Complete Streets



AB 1358: Complete Streets

- Signed into law in 2008
- Applies during General Plan or Circulation Element updates
- Requires accommodation of all users of the circulation system
- State will issue guidance document

Implementing Complete Streets

1. Revise roadway policies and standards
2. Revised decision process to include ALL users
3. Staff training
4. Data collection



Road Diet -- Dual Bike Lanes





Street Redesign, Hamburg, NY



“Accommodate all users”





“Safe...Healthy...Sustainable”



“Livability...Cost-Effective”




“Visual Excellence”





ReThink: Safety



“More than 56% of the 6,367 pedestrian deaths in urban areas occurred on arterial roads.”

- *Dangerous by Design, 2009*

Vehicle Crashes Increase With...

- Lane widths $> 9-11'$ (Noland 2003)
- Added lanes (Fridstrom and Ingebrigsten 1991)
- Eliminating curves (Shankar 1995)
- Increasing design speed on curves (Shankar 1995)
- Larger shoulder widths (Ivan et al. 2000)
- Cul-de-sac neighborhood form (Marshall and Garrick 2008)
- Increased speed (many studies)
 - Pedestrians are most often killed on arterial roads (NHTSA).

Dutch Approach

1. Rejected wider, straighter, faster for urban arterials
2. Equal emphasis on walking, bicycling, and driving
3. Strict access controls on arterials

Result: 40% lower fatality rate, even though they started out 20% higher than U.S.

= 22,000 U.S. lives saved per year



Naked Streets (aka Shared Space)

No curbs

No markings

No signs

No certainty

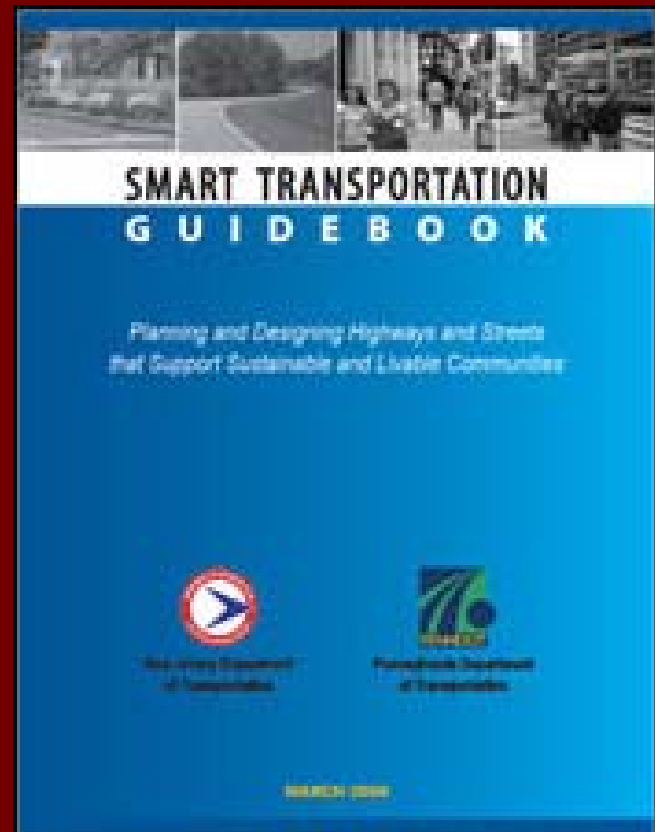
No speeding

Eye Contact



US Adoption of the Livable Streets Approach

- *Smart Transportation Guide*, Pennsylvania DOT/New Jersey DOT
- Charlotte
- San Francisco
- Denver
- Savannah
- Portland



Sustainable Streets

EPA & UC Davis

- **Movement** – Right-sized, speed-appropriate, serving all users safely and well, minimizing VMT.
- **Ecology** – Water recharge, landscaping, trees, reduced emissions, heat, noise, waste.
- **Community** – Identity, sociability, supporting compact development, local materials/designs, value, safety, environmental justice.

WANTED

Better Public Process

- Current process is broken.
- Most active citizens are not representative of the whole community.
- Perth, Australia Model:
 - Draw 50 citizens from volunteer “jury” pool
 - Educated on the project on all issues
 - Present their findings at the public hearing
 - Balances NIMBY’s and Proponents

“The livability revolution has begun.
There is no turning back.”
– Robert Sullivan, NY Times, November 27, 2008

