

Department of Urban Planning
UCLA School of Public Policy and Social Research

**UP 219 - Special Topics in CDBE
Urban Design & Transportation Workshop:
Transit-Oriented Development at Bus Rapid Transit Station
Areas**

Winter 2004
Room: Lecture 1 (SPPSR #3343c)
Monday 3:30 - 6:20
Doug Suisman (suisman@suisman.com)

This class will examine the intersection of two emerging urban trends - a form of transit operation known as Bus Rapid Transit (BRT), and a type of urban design known as Transit-Oriented Development (TOD).

Bus Rapid Transit is essentially an upgrade of traditional rubber-tire bus transit, using new electronic technologies, vehicle design, transit operations principles, and marketing techniques. BRT systems can now be found, either in the planning stages or in operation, in many dozens of cities around the world. BRT has attracted the attention of American planners and policy makers because of its lower costs than rail transit, and because of its suitability to the relatively low-density, horizontal form of the majority of American cities. In the MTA's Metro Rapid system, Los Angeles has a new and growing BRT system which has attracted international attention.

Transit-Oriented Development is based on the kind of medium to high density, mixed-use urbanism which arises naturally in compact traditional cities, but which is nearly antithetical to functionally zoned, horizontal, automobile-dependent cities in the United States and elsewhere. In those cities, an orientation towards transit must be planned and induced by transit-friendly policy and design. T.O.D. overlaps significantly with larger urban movements, notably those concerned with livability and sustainability. This includes but is not limited to the American movement known as New Urbanism.

Advocates of BRT often cite "integrated land use planning" as a important element of a complete BRT system - that is to say, development along the BRT routes and especially at BRT stations which is transit oriented. In the original and highly influential BRT system in Curitiba, Brazil, extensive transit-oriented development can indeed be found, but such integration is rare (Brisbane and Ottawa may serve as two other examples). At the same time, TOD advocates in the United States usually invoke the potential of both rail and bus transit for TOD projects, but the overwhelming majority of planned and real projects are connected to rail systems rather than bus systems. There are arguably no existing TOD projects in the U.S. which are explicitly oriented to a BRT system.

Therefore, this seminar will examine what the prospects are - especially in the Los Angeles region - for true transit-oriented development along a BRT system. When completed in three years, the Los Angeles Metro Rapid system will comprise more than 400 route miles with more than 2000 station stops, spaced nearly a mile apart. Can these BRT lines and stations help to foster adjacent transit-oriented development? What obstacles exist? What policies need to be developed? And what form could such development take? These are the questions which the workshop will begin to address. While some theoretical background will be presented, the focus will be on existing practical conditions. Students will

read background material on BRT and TOD , become familiar with the Metro Rapid system by using it, identify potential sites and strategies for TOD through field observation, and - in teams - produce schematic designs demonstrating the potential for integrating transit-oriented development with the Metro Rapid system.

Jan 12 Class 1

DISCUSSION:

The Relationship of Urban Design and Transportation
Defining Bus Rapid Transit
Comparisons with Rail Transit
MTA's Metro Rapid program
Defining Transit-Oriented Development
T.O.D. - Rail versus Bus

ASSIGNMENT #1:

RESEARCH:

Online research on one of the following BRT systems:
Adelaide, Brisbane, Ottawa, Bogota, Curitiba, Quito
Summarize your findings in a two-page report, with any
relevant attachments

FIELD RESEARCH:

Spend at least half a day observing the Metro Rapid system, so that you can observe both peak and off-peak operations (rush hour and non rush hour). Devote about half your time to riding the vehicles, the other half to observing operations at one or two stations stops. Make notes about stops which seem like potential candidates for transit-oriented development, particular new housing. Be prepared to report orally on your findings.

READING

1. *Los Angeles Boulevard* by Suisman
2. *Statewide Transit-Oriented Development Study (Final Report section only)*
3. *Sustainable Transport: A Sourcebook for Policy-makers in Developing Countries - Module 3b: Bus Rapid Transit*
4. *Ten Barriers to Effective BRT Planning* by Hoffman
5. *Journal of Public Transportation* (Vol.5 No.2 - all articles except Koonce)
6. *Journal of Public Transportation* (Vol.6 No. 4 - Baltes and Johnson)

[Jan. 19

MLK Holiday] no class

Jan. 26 Class 2

VISITOR: Alan Hoffman, Transportation Planner, The Mission Group

DISCUSSION:

Design Bus Rapid Transit systems
The Experience of Metro Rapid
Field Observations
Station and Vehicle Design
Station Location
At-Grade Transit
Sidewalk and Property Line
Issues for Transit Oriented Development in BRT systems

DUE: ASSIGNMENT #1

ASSIGNMENT #2:
Study major policy and regulatory framework for TOD in Los Angeles
Identify and analyse potential TOD sites along Metro Rapid routes

Feb. 2 Class 3

DISCUSSION:

Transit-Oriented Development in Los Angeles
Housing Demand
Retail and Office Demand
Convenience and Amenity
Policies & Regulations

DUE:

1. *Good Neighbors: Housing That Supports Stable Communities*
2. *There's No There There - Or Why Neighborhoods Don't Readily Develop Near Light Rail Stations*
3. *Land Use/Transportation Policy of the City of Los Angeles and the MTA*

Feb. 9 Class 4

DUE:
Assignment #2: Analysis of regulatory framework and potential TOD sites

Feb. 16 [President's Day] no class

Feb. 23 Class 5

Mar. 1 Class 6 **DUE:**
Assignment #3 - Preliminary Development Proposals

Mar. 8 Class 7

Mar. 15 Class 8 [Instruction ends on the 16th]

Mar. 22 Class 9 **DUE:**
Assignment #4 - Final Development Proposals

READING MATERIALS - BUS RAPID TRANSIT

- **"Sustainable Transport: A Sourcebook for Policy-makers in Developing Countries - Module 3b: Bus Rapid Transit"**

DOWNLOAD FROM: www.itdp.org/pub.html

- **"Ten Barriers to Effective BRT Planning"**

Alan Hoffman (Brisbane: 2004)

(DOWNLOAD FROM: class web site (address to be provided))

Journal of Public Transportation - Special Issue on Bus Rapid Transit
Volume 5, No. 2 (Berkeley: 2002)

DOWNLOAD FROM: www.cutr.usf.edu/index2.htm (then go to "Public and Reports", then to "Journal of Public Transportation")

- "Bus Rapid Transit: An Overview"
Levinson et.al.
 - "Characteristics of Bus Rapid Transit Projects: An Overview"
Jarzab et.al.
 - "Bus Rapid Transit: A Viable Alternative?"
Polzin and Baltes
 - "Bus Semirapid Transit - Mode Development and Evaluation"
Vuchic
 - "Applicability of BRT to Corridors"
Carey
 - "Detection Range Setting Methodology for Signal Priority"
Koonce et.al.
 - "Door-to-Door Mobility: Evaluating a BRT Community Transport Concept"
Pahs et.al.
 - "Ottawa and Brisbane: Comparing a Mature Busway System"
Rathwell and Schijns
-

Journal of Public Transportation
Volume 6, No. 4 (Berkeley: 2003)

- " The Importance Customers Place on Specific Service Elements of Bus Rapid Transit"
Michael Baltes
 - "Bus Transit and Land Use: Illuminating the Interaction"
Andy Johnson
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READING MATERIALS - TRANSIT-ORIENTED DEVELOPMENT

"Statewide Transit-Oriented Development Study - *Factors for Success in California*"

California Department of Transportation (Sacramento:2002)

- PART 1: FINAL REPORT
- PART 2: TECHNICAL APPENDIX
- PART 3: PARKING AND T.O.D.

DOWNLOAD FROM: www.video.dot.ca.gov:8180/site/miscellaneous/StatewideTOD.htm

- **"Good Neighbors - Housing That Supports Stable Communities"**
Los Angeles Department of Neighborhoods (Los Angeles: 1994)
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- **"There's No There There - Or Why Neighborhoods Don't Readily Develop Near Light Rail Stations"**
Anastasia Loukaitou-Sideris and Tridi Banerjee (Los Angeles: 1996)
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READING MATERIALS - URBAN DESIGN

"Los Angeles Boulevard - *Eight X-Rays of the Body Public*"
Douglas R. Suisman (Los Angeles 1989)

WEB RESOURCES

State of California's T.O.D. Searchable Database

<http://transitorienteddevelopment.dot.ca.gov/>

Center for Transit Oriented Development (advocacy site - New Urbanism)

<http://www.transitorienteddevelopment.org/pages/1/index.htm>

Federal Transit Administration's Bus Rapid Transit Demonstration Program

<http://www.fta.dot.gov/brt/>

Bus Rapid Transit Policy Center (advocacy group)

[Bus Rapid Transit Policy Center](http://www.gobrt.org)

(www.gobrt.org)

Metro Magazine (trade publication) BRT Page

[Metro Magazine \(Bus Rapid Transit\)](http://www.metro-magazine.com/t_brt_home.cfm)

(www.metro-magazine.com/t_brt_home.cfm)

American Public Transit Association (APTA) BRT Page

http://www.apta.com/research/info/briefings/briefing_2.cfm