System Planning for Quality Transit Systems

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Procedures and Technical Methods for Transit Project Planning

Foreword

Part I: The Major Capital Investment Planning Process
1. Introduction to Major Investment Planning
2. Systems Planning*
3. Framework for Alternatives Analysis

Part II: Conduct of the Analysis
1. Organization and Management*
2. Definition of Alternatives
3. Estimation of Capital Costs*
4. Operating and Maintenance Costs*
5. Methods for Travel Forecasting*
6. Interpretation and Use of Travel Forecast Data*
7. Estimation of Socio-Economic and Environmental Impacts*
8. Financial Planning for Transit
9. Evaluation of Alternatives

Part III: The Decisionmaking Process
1. The Draft Environmental Impact Statement*

* Note: Chapters marked with an asterisk (*) are unavailable in electronic format; however, select the links above to send an email requesting a printed copy via US Postal Service.
Objective of Guidelines

To improve the quality of transit investment proposals by strengthening the technical, programmatic, and policy work conducted through metropolitan planning.
System Planning

- Complements metro transportation planning
- Regional in scale
- Multimodal
- Technical Focus
- Institutional Focus
- MPO, transit authority, planning partners
Problems discovered in transit project development tend to be rooted in failures during metropolitan planning to:

1. Establish Regional Context for Transportation Needs
2. Establish Regional Policy Framework for Land Use
3. Promote Effective Practice in Travel Forecasting
4. Early Consideration of Environmental Issues
5. Establish Regional Context for Financial Planning
Critical Element # 1: Regional Needs Assessment

- Policy Goals and Objectives
- Technical Analysis
- Potential Solutions
Critical Element #2: Land Use

Characteristics of Transit-Supportive Land Use:

- **High Density; compact development patterns**
- **Mixed Use**
- **Street Connectivity with Sidewalks**
- **Constrained Parking Supply**
Land Use: Regional Framework

• Technical Analysis and Forecasting
• Building Inter-Jurisdictional Cooperation and Support
• Regional Policies, Programs, and Incentives
Critical Element # 3: Technical Analysis and Forecasting

- Integration of project- and system-level planning
- Transparency
- Data Quality: current household/on-board surveys
- Validation
Critical Element #4: Early Consideration of Environmental Issues

- Identify critical concerns and issues that could affect the implementation of transportation improvements
- Advance assembly of important environmental resource information
- Monitoring and analysis
Critical Element #5: Financial Planning

Project-level financial plan should be integrated with 20-year system plan

- Inter-agency coordination across modes
- Cooperative revenue forecasting
- Risk analysis
Portland Metro’s Region 2040 Growth Concept
TriMet and Metro

- Work closely at all levels of development
- Metro leads corridor planning phase
- Metro selects the preferred alternative
- TriMet designs, builds and operates
Portland Regional Transportation Planning Responsibilities

Typical Project Responsibilities

Metro lead activities
- System Plan
- Alternatives and Analysis
- Draft Environmental Impact Statement
- Final Environmental Impact Statement
- Project management handoff

TriMet lead activities
- Conceptual Design
- Preliminary Engineering
- Construction
- Operations & Maintenance
Portland’s Decision Making Structure

- Metro Council
  - TriMet Board
  - Local Councils
    - ODOT
  - Steering Committee
    - Elected and appointed officials from TriMet, ODOT, Metro and local jurisdictions
    - Meets quarterly - hearing body
  - Citizen Advisory Committee
    - Citizens, property owners, business and civic Groups. Hear public comment and provide input to the project
    - Meets monthly
  - Project Management Group
    - Top managers from TriMet, Metro, ODOT, and local jurisdictions
    - Meets bi-weekly
Mobility 2025:
The Metropolitan Transportation Plan, Amended April 2005

Rail System
Legend
- Future Light Rail
- Existing Light Rail
- Future Regional Rail
- Existing Regional Rail
- Future Rail
- Special Events
- Future Intercity Rail
- Existing Intercity Rail
- North Crosstown Corridor Study*
- Possible Eastern Terminus
- Existing Rail Corridors

*North Crosstown Corridor Study Area
At a minimum, evaluate the engineering feasibility and environmental implications of:
- rail along the KCS line and the Burlington Northern line, including the feasibility of an alternative connection along I-35E
- rail along the full Cotton Belt Corridor, from Parker Road to DFW Airport; and
- rail along the Cotton Belt Corridor from DFW Airport with an eastern transition to light rail along LBJ Freeway at an Addison Intermodal Center.

As Amended: April 14, 2005
FIGURE 6-1
2030 Transit System Plan

2030 Rail
- Express Rail
- Rapid Rail

2030 Bus
- Express Bus
- Enhanced Bus
- Rapid Bus

2030 Managed HOV Lanes
- DART Participation
- No DART Participation

2030 Paratransit (service provided systemwide)
2030 Systemwide Mobility
For more information, comments, suggestions:

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