Session 35

Jennifer Stults

LYNX

Lymmo & Other Major Tansit Projects in Orlando

Topic Description

LYMMO is Downtown Orlando's Bus Rapid Transit (BRT) Circulator that has been in existence for nearly ten years. LYMMO operates a two-way loop in a dedicated lane, with a separate signal system, signal priority, and other Intelligent Transportation Systems (ITS) features. LYNX and other agencies are working on future next-generation LYMMO-type projects in the Central Florida region.

Speaker Biography

Ms. Stults has over 10 years of transit experience, seven of those with LYNX. She gained a great deal of experience as project manager, then Manager of Strategic Planning, and currently as Deputy Chief of Planning and Technology. Ms. Stults' previous experience included working for a Metropolitan Planning Organization and consulting for the Florida Department of Transportation.

She graduated from Florida State University with a M.S. in Urban and Regional Planning with a specialty in transportation, and from Rollins College with a B.A. in Environmental Studies. Ms. Stults has also received her professional certification through the American Institute of Certified Planners.

Ms. Stults is the vice-chair of METROPLAN ORLANDO's Transportation Technical Committee and its subcommittees. She has previously served as president of the Central Florida Chapter of the Women's Transportation Seminar.

LYMMO and Other Major Transit Projects in Orlando

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LYNX

Presentation Outline

LYMMO (existing)
Altamonte Flex Bus (planned)
I-Drive Circulator (proposed)
General Transit Facilities
Contact Information

Lymmo

- BRT Circulator in Downtown Orlando
- Started service August 2007
- Two-way loop in dedicated lane
- Separate signal system with signal priority

Lymmo

- Vehicle tracking tied to kiosks, on-bus TVs
- Audible, visible real time announcements

Lymmo

- City of Orlando converted general travel lanes
- TCEA investment in transit
- Enabled additional development
- Connect remote parking structures with downtown employers and activity centers

Lymmo

- Rail-like stations and buses

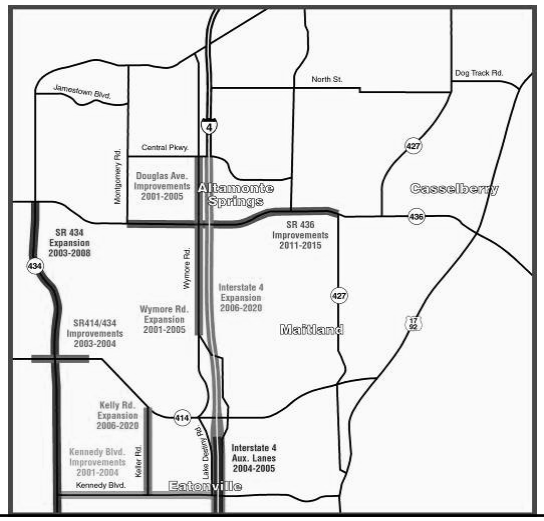
LYMMO

- Intermodal connections

Altamonte Springs FlexBus

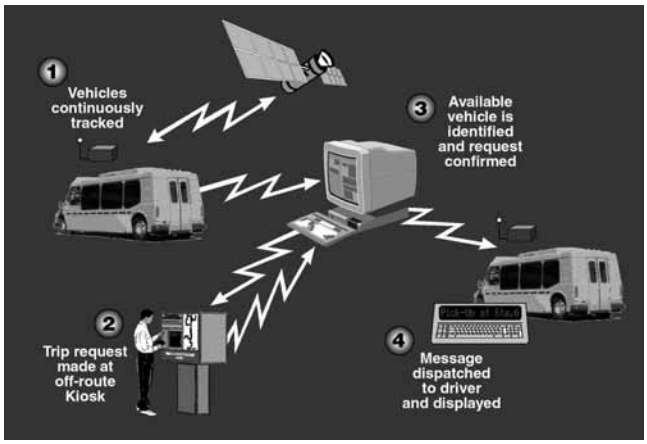
- Next Generation LYMMO
- BRT with flexibility of route deviation
- Can operate in mixed traffic
- Design & construction bundled with roadway and signal improvements

Planned Roadway Reconstruction Projects



Altamonte Springs FlexBus

- ITS technology



Altamonte Springs FlexBus

- Pre-Board Fare Payment
- Developer contributions

I-Drive Local Circulator

- International Drive
- High existing transit service and use
- Shared transit facilities
  - Bus stops
  - Shelters
  - Pull-out bays
  - Signage
  - Future Canadian Court Intermodal Center
- Failing roadways, parking limitations, limited ROW
- Ripe for high capacity transit project
- Recent NEPA study selected “best bus” BRT option

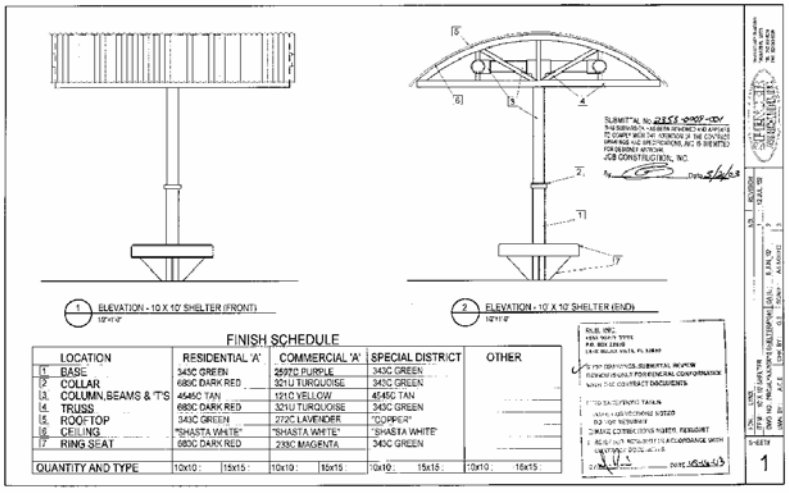
General Bus Stop Spacing

Table 2.1 - Typical Bus Stop Spacing Guidelines

Environment	Spacing Range	Typical Spacing
Core Areas of CBDs	300' to 1,000'	600'
Urban Areas	500' to 1200'	750'
Suburban Areas	600' to 2500'	1000'
Rural Areas	650' to 2640'	1250'

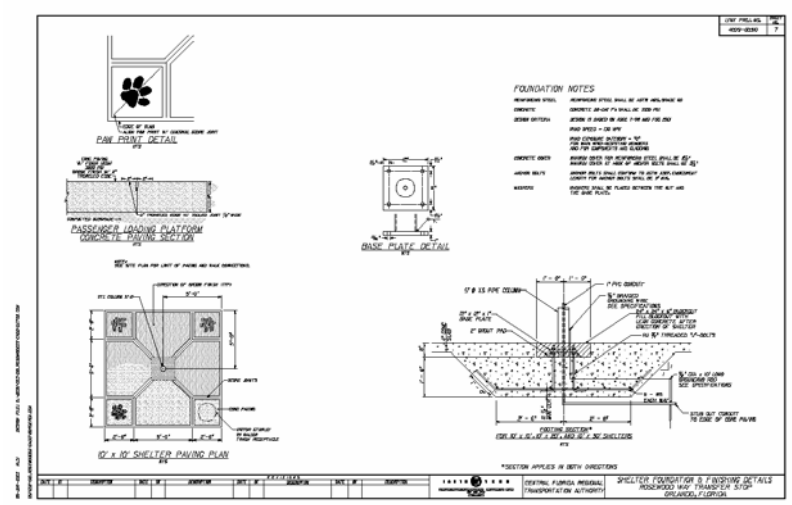
General Transit Facilities

Typical Shelter



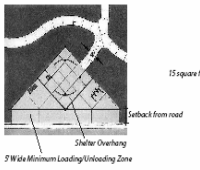
General Transit Facilities

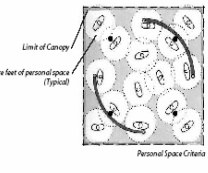
Shelter Pad Design



General Transit Facilities

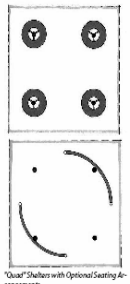
Shelter Design Considerations

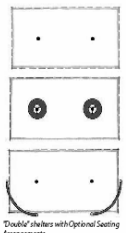


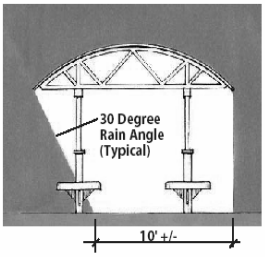


Design Bus Stops To Functional Standards

In addition to the functional and operational standards of the LYNX buses, mobility stations need to respond to passenger design criteria to ensure access and convenience to as many people as possible. All mobility stations shall be accessible by physically challenged persons. These requirements pertain not only within the actual structures but include efforts to provide circulation connections to adjacent developments. This effort will require coordination with local governments, developers, and adjacent property owners to achieve success. The mobility stations should provide transit service and route information.

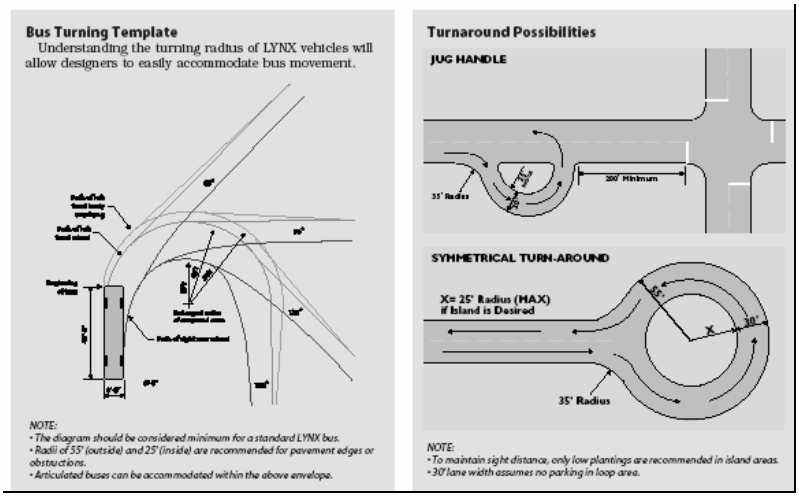

"Quad" Shelters with Optional Seating Arrangements


"Double" shelters with Optional Seating Arrangements



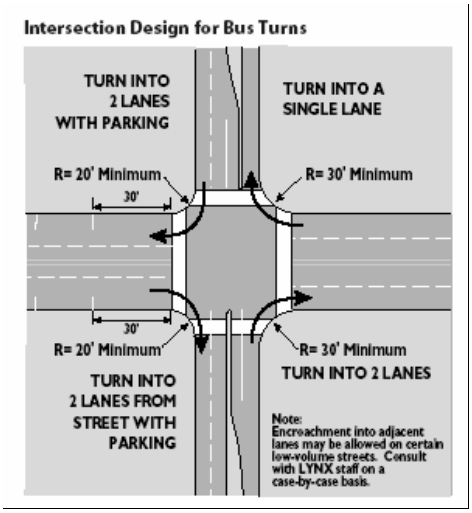
General Transit Vehicles

Bus Turning Geometrics



General Transit Vehicles

Bus Intersection Geometrics

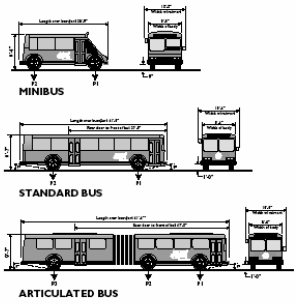


General Transit Vehicles

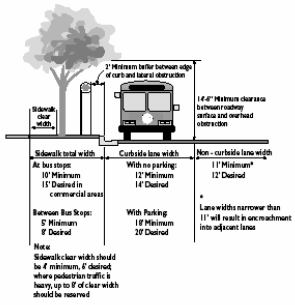
Bus Clearances

Bus Vehicle Dimensions

Vehicle dimensions are used to establish minimum functional standards. Dimensions illustrated in this manual represent the largest vehicles within each bus classification.



Vertical and Horizontal Clearances for Buses



WEIGHT (LOADED)	MINI BUS	STANDARD BUS	ARTICULATED BUS
TOTAL WEIGHT	22,040 lbs	38,000 lbs	62,000 lbs
AXLE LOADING AT P1	11,020 lbs	14,000 lbs	14,000 lbs
AXLE LOADING AT P2	11,020 lbs	24,000 lbs	24,000 lbs
AXLE LOADING AT P3			24,000 lbs
GRADE LIMITATIONS			
	Uphill: 6% Downhill 12%	Uphill: 6% Downhill 12%	Uphill: 6% Downhill 12%
TURNING RADIUS			
48 foot minimum outside radius (with overhang), 50 foot desirable 27 foot minimum inside radius, 30 foot desirable			

General Transit Resources

- LYNX Mobility Design Manual
- LYNX Customer Amenities Manual
- LYNX Bus Stop Placement Standards
- Available on www.golynx.com

- TCRP Report 19: Guidelines for the Location & Design of Bus Stops
- Transit Signal Priority: A Planning & Implementation Handbook – US DOT & ITS America

Comments?

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