

## **APTA Passenger Transport--Sustainable Source Column Article, Part 1**

**September 17, 2007**

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### **Transit Helping to Secure a Healthier Environment**

Go Green! Climate Change! Global Warming! The Global Roundtable! Zero Emissions! Hybrid Technology! Carbon Footprint! Sustainable Development! LEED - Silver, Gold, and Platinum! Biofuels! Reclaim and Recycle! Life Cycle Analysis!

Everywhere one turns, the popular press--USA Today, The Wall Street Journal, Time Magazine, and many more--chronicle the renewed interest and concern over environmental sustainability. Yes, the idea of sustainability now is in the mainstream of public thought. It is no longer seen as a way to limit production or to reduce choices; it is considered a good business decision. More importantly, and quite simply, it is the right thing to do.

With respect to many of these issues, transportation produces major impacts and influences, especially in the generation of carbon. However, the transportation sector is making fundamental changes daily, helping to generate a positive impact on our shared future.

APTA understands the effects of transportation on environmental quality and is committed to helping public transportation agencies reduce their environmental footprints. It expresses this commitment in its threefold interpretation in the areas of operations, facilities, and land use/transit integration.

#### **A Value-Based Approach**

Companies, such as HDR and others that can have a positive effect on our shared environmental future, are embracing sustainability across the board. The ability to address sustainability issues--such as air pollution, watershed management, pervasive urban sprawl, renewable energy resources, unmitigated traffic congestion, depletion of natural resources, and limited mobility choices--is within our collective grasp. Business practices are changing on a daily basis.

Private industry is shifting in ways that will help create a more sustainable future. HDR is an APTA Business Member that embraces the challenge by offering sustainable transportation solutions focusing on three realms:

\* Environmental awareness. Understanding interconnected systems helps identify decisions that will have a positive environmental impact;

\* Community/social responsibility. Understanding the effects of transportation systems on the people and places they serve enhances quality of life and promotes social equity; and

\* Economic interests. Understanding that transportation is the lifeblood of the economy promotes economic development, cost-effectiveness, and access to employment.

Furthermore, people insist on being involved. They want to help define and develop the outcomes that directly affect them. The requirements for integrated responses across these three realms become more apparent every day.

Transit is at the forefront of promoting environmental improvement, working to reduce greenhouse gas emissions; promote mixed-use, walkable communities; provide equitable access to employment; and secure economic security.

### Sustainable Transit System Development

In pursuit of sustainable transit solutions, project development must address environmental, social, and economic implications. The manner in which the three are incorporated varies from project to project, due to their diversity in scale and type. Nonetheless, applicable sustainable solutions are a component of each project's scoping and delivery.

The philosophy of transit system development includes:

\* Approach. An effective approach to sustainability begins with an understanding of the proper scale of project development. This understanding places projects in a broader environmental, social, or economic context. HDR delivers transit and transit-oriented development solutions at the system, corridor, district, neighborhood, and station area levels;

\* Expertise. Professional expertise is key to delivering sustainable transit solutions. For transit projects, this involves collaboration among multi-disciplinary staff to address the full range of environmental, social, and economic concerns; and

\* Experience. Transit is one of the most sustainable transportation modes available. It is economically efficient, environmentally friendly, offers mobility options for all citizens, relieves traffic congestion, supports walkability, promotes economic development and social equity, and fosters compact, mixed-use communities.

Gaining a comprehensive understanding of project development that accommodates the three sustainability factors comes with experience working on a variety of transit projects. HDR's

growing portfolio of transit projects incorporates sustainable solutions.

### In the Phoenix Region

A significant impact on the land use pattern in Phoenix, in the form of sustainable transit-oriented development, is occurring along the initial 20-mile Valley Metro Rail light rail line, which will connect downtown Phoenix with Mesa. These new development patterns stand in a clear contrast to the region's suburban sprawl. New mobility opportunities are afforded the major sports venues--the baseball stadium and basketball and hockey arena--which are located on the light rail line.

The new Arizona State University campus in downtown Phoenix, designed to serve 15,000 students, is a direct result of transit. The campus offers limited parking and maximizes access to transit.

When Valley Metro Rail enters service, passengers at Sky Harbor International Airport will be able to take an automated people mover between the terminal and the light rail station serving the airport.

Tempe already has a pedestrian-friendly environment, and that is only enhanced by the development of major mixed-use projects. As the Tempe ASU campus grows to accommodate 50,000 students, it will emphasize reducing parking and increasing transit.

As with many new systems, expansion is in the works and local interest in new, sustainable development is increasing.

### In Houston

Houston's Metro Solutions plan offers a comprehensive, integrated system to improve regional mobility, incorporating light rail, commuter rail, and Bus Rapid Transit.

Once tethered only to the automobile, Houstonians are seeing a growing range of transportation options. The comprehensive system will add 65 miles of light rail, eight miles of commuter rail, and a 50 percent increase in bus service, and increase access to activity centers, reducing the need for residents to drive.

Dramatic intermodal facilities will offer placemaking statements and facilitate passenger comfort and safety. Passengers will be able to access both Houston area airports by rail, and some 50 stations will provide new development opportunities.

Metro Solutions is expected to help improve the regional air quality and reduce carbon loading, offer a more socially equitable solution to the mobility needs of the region, and create a new array of development potential around the proposed stations.

The Metropolitan Transit Authority of Harris County has an aggressive program to incorporate SBE/DBE participation in the implementation of Metro Solutions. This expanding transit investment covers the region's environmental, social, and economic concerns.

Editor's Note: The second part of this column will report on other ways in which transit is helping to create a sustainable future, such as a return to streetcars; transit-oriented development in northern Virginia; and master plans that incorporate transit elements.