



## David M. Taylor, ENV SP President

### EDUCATION

University of South Florida, BA Political Science

Florida State University, MS Urban and Regional Planning

### AREAS OF EXPERTISE

- Strategic Planning
- Visioning and Facilitation
- Transit/Transport Planning
- Urban Design
- Infrastructure Implementation
- Research

### CERTIFICATIONS

- Certified Facilitator, National Charrette Institute
- Envision Sustainability Professional (ENV SP), Institute for Sustainable Infrastructure

### Overview

As a consultant for over four decades, Mr. Taylor has a national practice with a wide variety of projects for public, private and institutions. Having worked for small and large private consulting organizations, his experience allows him to match appropriate solutions to perceived needs. In an ever-changing global context, he consistently monitors future trends to provide clients with sustainable community and transport strategies to complex assignments. His professional interests range from sustainable urban development to transport and land use integration, to innovative infrastructure rating systems and to unique new urbanism applications.

Prior to forming Taylor | Future Solutions, LLC, Mr. Taylor retired from a global engineering, architecture and consulting company where, over his nearly 20-year tenure, he served in various capacities. During this time, he served as the Director of Planning, the Director of Transit-oriented Design and the Director of Sustainable Transportation Solutions.

A believer in effective stakeholder participation, Mr. Taylor utilizes a diverse suite of techniques. Among these is the charrette process that brings single agenda participants into a multiple agenda environment for informed decision-making. He is certified by the National Charrette Institute as Charrette Facilitator. His experience includes leading charrettes in New Jersey, Florida, Texas, Virginia, North Carolina, Georgia, Idaho, New Mexico, California and Washington

### Active Professional Involvement

Mr. Taylor believes he has a responsibility to give back to a profession that has ability to make significant impacts to the quality of life. As a result, he not only maintains professional memberships but is an active participant with:

- The American Public Transportation Association
- The Urban Land Institute, Full member
- The Institute for Sustainable Infrastructure
- The Community Streetcar Coalition
- LOCUS/Smart Growth America
- The Congress for the New Urbanism
- The Local Government Commission
- EcoDistricts
- The TOD Institute
- Tampa Downtown Partnership

These associations reinforce smart growth, enhanced mobility and sustainable development. His involvement includes serving on national planning and program committees, two of which are highlighted:

- **New Partners for Smart Growth** – This is the premier conference on building healthy, equitable and sustainable communities. He serves on the National Planning committee that determines content tracks and specific sessions. For the 2017 conference, he moderated a session on *Transit: The Backbone of Shared-Use Mobility*. He developed the abstract and selected four nationally-recognized experts for the public, private and non-profit sectors.

- **Sustainability and Public Transportation Workshop** – Mr. Taylor was instrumental in developing this workshop with the American Public Transportation Association (APTA) in 2005. He is a member of APTA's Sustainability Committee and the Workshop Program Committee. He helps set the theme and session content. Mr. Taylor both a speaker and moderator at the Workshop.

Mr. Taylor maintains state-of-the art research and writes about a variety of sustainability and associated themes. Among these are:

- **Street Smart - Streetcars and Cities in the 21st Century.** He is a contributing author to the definitive, precedent-setting streetcar publication. The book won a 2007 Charter Award from the Congress for the New Urbanism.
- **The Mobility Benefits of Streetcars.** Mr. Taylor was retained by the Community Streetcar Coalition to research and prepare a report that illustrates that streetcars are more than an economic development tool.
- **Right-sizing TOD, Thinking Beyond the Station.** Prepared for Mass Transit magazine, the article emphasized a systems approach to transit-oriented development from a regional perspective. The typical practice focuses on the station, which only sub optimizes the potential TOD can offer communities.
- **California High Speed Rail – A Sustainable Solution.** The article, for C+E Engineering News, highlights the California High Speed Rail program and its utilization of Envision, the infrastructure planning and rating tool.
- **Transit's Role in Helping Secure a Healthier Environment and Transit Design and Technology Benefit the Environment.** This was a set of articles prepared for APTA's "Sustainability Corner" of its Transport News publication.
- **Transit's Role in a Sustainable Future.** Prepared for Mass Transit magazine, the article offered a synoptic view of transit as a formidable contributor to a more sustainable nation.
- **Sustainable Railroad Solutions – The Right Track in Economic and Environmental Success.** This article appeared in Rail Lines, an internal HDR publication that highlighted the changing scope of the freight rail industry's push toward technological and performance sustainability.

Additionally, he is a frequent national speaker in the areas of sustainable transport and land use integration, transit-oriented community development, climate and resilience, and innovative infrastructure finance. Representative speaking engagements include:

- **Fall 2016 and Spring 2017 Guest Lecturer, Patel College for Global Sustainability,** Tampa, FL
- **The Metropolitan Planning Commission,** Chicago, IL
- **National Council for Public Private Partnerships,** Washington, DC and Chicago, IL
- **Locus Leadership Summit,** Boston, MA
- **APTA Rail Conference,** Pittsburgh, PA
- **Transport Chicago,** Chicago, IL
- **American Railway Development Association,** Annapolis, MD
- **International Right-of-Way Association,** Austin, TX
- **APTA Sustainability and Public Transportation Workshops,** New York, NY, Portland, OR, Chicago, IL, Austin, TX
- **May in Motion,** Boise, ID
- **Clackamas County Leadership,** Gresham, OR
- **Oregon DOT,** Portland, OR
- **Pennsylvania Brownfields Conference,** Allentown, PA
- **TX DOT - Austin Region,** Austin, TX
- **New Partners for Smart Growth,** St. Louis, MO, Baltimore, MD, Albuquerque, NM, Washington, DC, San Diego, CA, Seattle, WA
- **Institute for Sustainable Infrastructure,** San Francisco, CA, Washington, DC
- **EcoDistricts,** Tampa, FL
- **TOD Institute Summit,** Washington, DC

## Representative Experience

Mr. Taylor has substantial experience integrating land use and transport strategies across a broad range of project types. Such projects include sustainable planning and development, integrated infrastructure delivery, station area planning, and livability and walkability. The following experience is grouped into Sustainability and Infrastructure, Transit Planning and Transit-oriented Development (TOD), Streetcars and Circulators, and Walkable, Sustainable Development.

## *Sustainability and infrastructure*

### Envision Services, Multiple Locations

Mr. Taylor's Envision experience spans more than four years and includes active involvement with the Institute for Sustainable Infrastructure's (ISI) Technical Committee, and he is leading the update of the Transportation Credits for the proposed Envision Version 2. Previously he chaired the Checklist Subcommittee in an effort to make more reflective of the Envision process. He represented ISI at two national conferences and jointly presented with the ISI Executive Director on five occasions. As to direct project experience, Mr. Taylor has project experience as follows:

- **Construction Project 1, California High-Speed Rail Authority, Fresno, CA**

Mr. Taylor is the Strategic Envision Advisor to WSP PB (the Authority's Sustainability Manager) to update a previously-prepared Envision Checklist and to facilitate an in-person Workshop to develop an Envision Scoresheet for the first 32-mile segment. The project is located in California's Central Valley. The Authority wants to use Scoresheet results to validate and/or enhance its sustainability standards and practices, as appropriate.

- **Highway 76 Parking Lot, Clemson University, Clemson, SC**

Under direct contract with ISI, Mr. Taylor is the assigned verifier for the parking project at the University. The project is significant in that it provides an off-campus parking resource, rather than constructing an expensive parking garage on campus. That approach is too expensive and space prohibitive. Direct connections to campus are made through a dedicated shuttle bus and supporting pedestrian and bicycle facilities.

- **Reclaimed Pump Station Verification, St. Petersburg, FL**

Under direct contract with ISI, Mr. Taylor was tasked with verifying a project in the City of St. Petersburg, FL. It was a small project that entailed removing, repurposing and relocating two pump stations from one location to another. In his role as a Verifier, he helped the City and its consultant understand the Envision process, ultimately recommending that the City not continue through the process due to project size and minimal effects.

- **Massachusetts Bay Transportation Authority (MBTA) Green Line, Boston**

Even though MBTA has high sustainability guidelines and criteria for developing its transit systems, it decided to prepare an Envision Workbook for the new light rail extension. MBTA felt that Envision complemented its guidelines and added the opportunity for a third party verification of the project's commitment to sustainability. Due to its location in highly urbanized cities of Cambridge, Somerville and Medford, these communities have a high environmental ethos. Envision was seen as a way to demonstrate MBTA's commitment to sustainability. Mr. Taylor led a pre-workshop session to develop the basis for a full Workbook. Afterward, he led a two day, on-site Workshop to prepare a Workbook for the Green Line. The Workshop included MBTA and selected technical leads to help populate the Credit list. As a result of the Workshop, the Green Line was able to achieve a potential Platinum rating. Subsequently, Mr. Taylor assisted consultant staff in preparing the documentation.

- **Wave Streetcar, Ft Lauderdale, FL**

As part of the project development process, the South Florida Regional Transportation Authority and the City of Ft. Lauderdale, decided to conduct an Envision evaluation and rating for its new streetcar system. The decision was based on the project's location in low-lying areas and near sensitive

resources. Mr. Taylor led an initial Workbook Workshop to identify the most important Credits to be pursued to attain the highest possible rating.

- **I-4 Ultimate, Orange and Seminole Counties, FL**

The I-4 Ultimate is a complete reconstruction of 22 miles of the expressway in Central Florida as a public-private partnership. Delivering an Envision “Platinum Highway” to the Florida Department of Transportation was fundamental to the I-4 Mobility Partners successful selection for the project. As part of the pursuit, as well as after selection, Mr. Taylor led a multi-disciplinary team Workshop to prepare the Initial Checklist. Following the Checklist, he led two rounds of full Workbook Workshops with technical team members selected to respond to the various Credits. The project is registered with ISI and being submitted for a Platinum level award.

**Sustainability Plan and Action Program, Valley Metro, Inc., Phoenix, AZ**

Because of his active APTA involvement, Valley Metro retained HDR to lead the development of the agency’s first-ever sustainability plan and action program. Mr. Taylor was the lead facilitator to develop a plan to raise Valley Metro’s Sustainability Commitment recognition from entry to Gold. The project included analysis of existing efforts and a review of twelve peer agencies. The methodology for the plan and program was based on APTA’s four pillars – Sustainable Organization and Business Practices, Sustainable Planning, Policy and Community Development, Green Design, Materials and Infrastructure, and Sustainable Operations. A central focus was placing the sustainability lead within the organization structure.

**SR520 Bridge Replacement, HOV and High Capacity Transit Program, Seattle, WA**

SR502 is only one of two Lake Washington crossings that link Seattle to the fast-growing suburban communities to the east. Mr. Taylor led the corridor-wide context sensitive solutions (CSS) effort that has three vision aspects – context, character, and connections. Preliminary urban design proposals, developed during a charrette, including “lids” over the highway to link communities. The lids serve as community “connectors” and gathering places. In some cases, lids allow direct access to transit below. Transit, pedestrian, bicycle and roadways were integrated to improve the multi-modal function of the facility. Until the CSS approach was employed, there was significant fear and mistrust over the potential impact of the \$4.25B project. It is a complex setting, ranging from Native American settlements, to fragile environmental systems, to an Olmsted Arboretum, to the University of Washington, and to upscale east-side communities. Using a variety of techniques, the team led by Mr. Taylor was able to completely re-envision the project to help move it closer to completion.

**I-81 Reconstruction, Syracuse, NY**

HDR is part of a multi-disciplinary team evaluating options for the potential reconstruction of I-81 through the heart of Syracuse. Currently, the expressway is considered one of the most dangerous and unsafe interstates. Portions of the viaduct, that separates the downtown core from Syracuse University and a major hospital complex, are frequently closed to reinforce its structural integrity. Mr. Taylor led a group of transportation planners, urban designers and economists to evaluate ways the new facility can better “fit” its setting. The City and NYSDOT considers the project the most important infrastructure investment for the next 100 years. Mr. Taylor’s approach was to consider the facility from the drivers’ and communities’ perspective – called inside out and outside in. Given its elevated character, one alternative is to re-envision it as an urban boulevard. The resulting facility alternatives must fit the needs of both.

**I-405 Corridor Enhancement Program, King County, WA**

Since the adoption of the I-405 master plan, the strategy was to fund groups of projects that directly addressed the worst congestion chokepoints. The first projects coordinated all transportation modes into a unified sales tax working system. Each defined segment was funded as a “Nickel” project, based on a local transportation funding initiative. The master plan was an overall Context Sensitive Solutions program for the entire corridor and implementation was segment-by-segment. Working with multiple team, Mr. Taylor led the quality control review for the segments that traversed the most densely-developed areas – Renton, Bellevue and Kirkland.

## **Assessing Minnesota DOT's Sustainability Practices, Minneapolis, MN**

Mr. Taylor served as the Project Manager of a team to assess Mn/DOT current status, based on the FHWA rating system, and what can be done to improve its design and delivery of truly sustainable projects. Minnesota DOT (Mn/DOT) was committed to seeing that its state-wide transportation program was delivering sustainable solutions. At the same time Mn/DOT was considering how to assess and increase the sustainability of both the transportation system and the agency's delivery of that system, FHWA has been developing a Sustainable Highways Self-Evaluation Tool. Mn/DOT retained HDR to apply the Tool to assess three areas – Systems Planning and Process evaluation; Transportation System Management, Operations and Maintenance; and Project Development. In the Project Development area, CSS is a major factor in how well projects "Score". This Tool will be the standard for evaluating future projects, and Mn/DOT intends to be a standard bearer.

## **Gratigny Parkway, Dade County, FL**

The extension of the Gratigny Expressway from I-75 to I-95 is recognized as a major missing piece of Dade County's west-to-east connectivity. The project was to evaluate multi-modal opportunities for the Gratigny. From a sustainability perspective, the Parkway extension corresponded to the Community and Economy dimensions. Revitalization and access to employment were two critical features. Mr. Taylor led the urban design effort for an alignment that traversed three discrete corridor zones. These three zones constituted a Context Sensitive Solutions approach. Using the zonal philosophy, Mr. Taylor facilitated a multi-day charrette to develop alternatives that were compatible with the zones. One of the most sensitive zones was the "Urban" one, which housed a large minority community. During the charrette, residents from the closest neighborhoods were involved in defining needs and opportunities. A range of alternatives was evaluated, and proposals were visualized. Architectural features, specialty lighting, and streetscape elements were included. The charrette allowed for an accelerated decision-making timeframe.

## **HUD Regional Plan for Sustainable Development Application, The Triad Region, NC**

As part of the Triad's multi-year effort to reposition the 12 county region to off-set significant employment losses, regional sprawl and increasing congestion, a 12-member consortium selected Mr. Taylor to lead the preparation of the HUD application. Through a series of partners' meetings, the application was presented, and HUD approved the \$1.6M grant.

## **Moving Greater Portland - Toward a Transit-focused Region, Portland, ME**

Mr. Taylor was involved in the Moving Greater Portland study, intended to position the region – built on a vision that coordinated land use and transit investments. His role was to assist in vision-creation through the public outreach process and to help refine the region's future settlement pattern and associated mobility alternatives. This effort was instrumental in forging the regional coalition that led to the successful receipt of the HUD regional planning grant.

## **Workforce Development Plan for the Region 9 Southwest Alabama Workforce Development Council, Mobile, AL**

Working as a subcontractor to Jobs for the Future (JFF), located in Boston, Mr. Taylor provided strategic transportation analysis and recommendations to assist JF's planning process. The work effort reinforces the social and economic dimensions of sustainability by offering job training and economic development opportunities. Using data from HUD's Location Affordability Index, Mr. Taylor outlined a series of transportation issues and opportunities to residents who are burdened with high Transportation + Housing costs. He recommended a set of public and shared transportation options for both job training and direct access to employment.

## ***Transit Planning and Transit-oriented Development (TOD)***

### **Project Connect: North Corridor, Austin, TX**

Mr. Taylor served as the deputy project manager to help assess the mix of modes that met regional goals and satisfied the application the federal (HUD, DOT and EPA) Partnership for Sustainable Communities' six Livability Principles. Project Connect is an important multi-modal transit vision that calls for the implementation of a true network across the greater Austin region. The North Corridor is the first corridor to be studied as part of the larger vision plan. Led by the Capital Metropolitan Transportation Authority, the

North Corridor study is an Alternatives Analysis for expanded transportation improvements to meet the growing needs of the area.

This was important since the funding came through the Federal Transit Administration's Livability program. One of his central roles was to guide the analysis of the alternatives against defined criteria. Such criteria included those adopted by the MPO, the Livability Principles and the results of the innovative Sustainable Return on Investment (SROI) process. In addition, he led the integration of transit-friendly development with the alternatives to help provide opportunities for local governments to consider future land use changes. Finally, he was involved in helping define a Transit Development Strategy for implementing the Locally Preferred Alternative.

### **Mount Baker Transportation Plan, Seattle, WA**

As part of the planning and design team, Mr. Taylor helped facilitate a five day charrette to develop an innovative solution to a complex transportation problem in the Mount Baker neighborhood. His specific role was to clarify the issues, set solutions within the context of current plans and confirm the standards and guidelines to drive a strategic solution.

The area was home to Sound Transit's Mt. Baker light rail station, a King County Metro bus transfer hub, and a complicated intersection of two major throughways – Rainier Avenue and Martin Luther King, Jr, Way. From a land use perspective, there were competing uses, traditional institutional uses and a remnant of the Olmsted Greenway. This array of uses created pedestrian safety problems. The intent of the charrette was to resolve these issues, with the primary focus on resolving the Rainier/King conflict. An innovative solution emerged from the process that addressed the intersection congestion, solved vehicular/pedestrian conflicts and allowed for land use transformation.

### **Downtown Minneapolis Intermodal Facility, Minneapolis, MN.**

Mr. Taylor was the charrette leader and lead urban designer for a week-long charrette to identify specific needs and requirements for a proposed Intermodal Facility in downtown Minneapolis. The goals were to understand short-and long-term needs, optimize connectivity, enhance mobility, and create a bold concept for the future. The location accommodates high speed rail, inter-city passenger rail, commuter rail and freight rail service at the lower level. Light rail and a potential streetcar are accommodated on the upper level. The site is next to the new Target Field, home to the Twins, as well as several key redevelopment areas. A final plan incorporated sustainable design solutions. During the charrette, public and private stakeholders identified future needs, and the program reflected the results. The multi-level design was based on Minneapolis' original train depot, but it reflected a contemporary style.

### **The Strip District Integrated Transportation and Land Use Plan, Pittsburgh, PA**

Mr. Taylor led a multi-faceted team to develop an innovative for Pittsburgh's most beloved places – the historic Strip District. The Plan was to be created in close concert with the neighborhood stakeholders. The Strip is a regional destination for shopping, food, entertainment and wholesale activity. Weekend crowds literally clog the Strip, making it nearly impossible to navigate. That led to a Transportation and Land Use Plan of an implementable program of projects. To address the current and future needs of the district.

A myriad of techniques was used, including a six day in-Strip charrette, led by Mr. Taylor. The result is a concurrence-based Plan built around a new concept - A Complete System of Streets. The system is expressed as a series of "Ways" – A Through Way; A Pedestrian Way; a Transit Way; a Cycle Way; and a Greenway. Capacity was added to the constrained network by shifting modes, providing the safe and healthy connections people were requesting and preparing for those of the future. In addition to technical studies, the final Plan was presented in a magazine format, with a complementary 8 minute video to build community support.

### **Brandon Main Street, Hillsborough County, FL.**

Mr. Taylor served as the Project manager for one of Hillsborough County's first community-based plans. The project is about 10 miles east of Downtown Tampa. After extensive community input, using a County-appointed Steering Committee, a "Main Street" was selected. The Main Street envisioned by the community was a gathering place for the celebration of local festivals and events, rather than an intense

commercial center. To accomplish this goal, a market “void analysis” was conducted to determine what land uses could be supported by the local market and reinforce the community’s desire.

The Main Street area is focused upon and built around a central square, and it is fronted by commercial, public, residential uses. The actual design anticipates transit usage with the inclusion of a county annex to serve the growing Brandon area. As a result the Main Street is designed as a “Bus TOD” ultimately linked to the proposed Tampa light rail program.

#### **Oasis Rail Transit Plan – Station Area Planning, Cincinnati, OH**

Mr. Taylor is the lead urban designer and public involvement facilitator for the 17 mile/10 station project in Cincinnati. He developed and applied a TOD strategy based on a corridor land use vision. The vision reflects the fundamental land use plans of multiple jurisdictions but re-characterized as transit-supportive. Each station was assessed for its issues and opportunities, and a real estate market study was used to establish the land use program for each station. A New Urban model – Center, General and Edge - was used to develop the station area plan. A minimum of two illustrations was applied to each station.

#### **Station Area Planning - Baton Rouge-New Orleans Intercity Passenger Rail (IPR) Feasibility Study, New Orleans, LA**

Mr. Taylor led the station area planning assignment for the proposed Baton Rouge to New Orleans IPR feasibility study. This effort was based on using this mode as a means of stimulating and supporting land use at six strategic locations along the corridor. Three station types were developed – Terminal, Suburban, and Town Center - corresponding to the communities’ size and characteristics. Using a New Urbanism use methodology of Center, General and Edge, a set of station area plans, along with the estimated population, ridership and economic development benefits, was prepared. The station area plans were reviewed and approved by elected and appointed decision-makers in each community.

#### **Transit/Land Use/TOD Planning for Southeast and West Corridors, Charlotte, NC**

The City of Charlotte prepared four simultaneous Major Investment Studies (MIS) for its new five-corridor, multi-modal transit system. The system includes Commuter Rail, Light Rail, and Bus Rapid Transit, with the streetcar as the system integrating technology downtown. Mr. Taylor was HDR’s Project Manager for land use planning on two of the corridors, the Southeast and the West. Southeast is Charlotte’s most urbanized corridor, with the highest expected ridership. The West corridor is home to the Charlotte-Douglas International Airport and major suburban employment centers.

The City determined that the land use component of corridor and station area planning was equally as important as the transportation requirements. This is consistent with the Federal Transit Administration’s New Starts Criteria for Land Use. The intent of the land use planning approach was to help define the future settlement patterns of the Charlotte region, while sustaining and enhancing existing communities and neighborhoods and directing transit alignments toward future development opportunities. The corridor planning process utilized NEPA environmental requirements for alignment testing and public scoping. The GIS-based corridor/station area planning process looked toward 2025, and future household formation and job creation were projected for the corridors, and development was allocated to individual stations based on the market demand. Plans were prepared for more than 60 stations on two corridors, with detailed planning on more than 20 along the preferred alignments. Information and findings for all four corridors were consolidated to develop a Locally Preferred Alignments for the overall system. An extensive public involvement program coalesced community support.

#### **Inner Core Master Plan, MARTA, Atlanta, GA**

Mr. Taylor served as the Project Manager for the important Inner Core Master Plan, the 25,000 acres that define the heart of the Atlanta Region. Given these factors, the purpose of the Inner Core Master Plan was to identify the appropriate levels of transit investment that will adequately address mobility concerns. At the same time, the plan supported emerging redevelopment trends required to sustain the anticipated growth. This area was undergoing re-urbanization, as movement to the Inner Core increased daily. Faced with the prospects for accommodating 175,000 new residents, 165,000 new employees, and 65,000 new households by 2030, the current development patterns, densities, use mixes and development patterns could not support the projected increases without redevelopment.

Likewise, with ever-increasing congestion, compatible transit alternatives were considered and evaluated. Using two proposed transportation concepts, the Beltline and the C-Loop, a variety of land use/transit concepts was designed and modeled for community evaluation. A NEPA based screening mechanism was used to test land use and transit alternatives. Modes considered included Streetcar, Light Rail, Bus Rapid Transit, and Diesel Multiple Units, (DMUs), and the evaluation parameters mirrored the FTA New Starts criteria. A final Master Plan included an Implementation Program.

#### **Rancho Cordova Transit Master Plan – Rancho Cordova, CA.**

Mr. Taylor led the development of a Transit Master Plan for the City of Rancho Cordova. Located in the Sacramento area, the City developed the region's first transit master plan to be included by the Sacramento Regional Transit District as an element of its long range plan. In addition, the plan is directly related to the implementation of BluePrint, the regional vision plan. The Plan features regional, citywide, district, and special transit services. The plan is closely coordinated with the City's Land Use, Economic Development and Air Quality elements. Due to the tight timeframe required to meet state requirements of the General Plan process, Mr. Taylor led a charrette to develop the plan. Because of the highly integrated nature of the plan (and the timeframe), key agency representatives – regional transit, regional planning, air quality – were part of the "planning team". This led to an expedited approval of the plan.

#### **West Orange Project Development Study (PDS), Orange County, CA**

Located south of Los Angeles, Orange County retained HDR to lead a team to develop a PDS that evaluated a range of transit alternatives to link the County into the regional transit network. This includes the potential to the Los Angeles light rail system, specifically the Blue Line to the north and the proposed Central Orange County system. The set of alternatives included light rail, commuter rail and bus rapid transit. As a highly urbanizing suburban county, there was a need to explore land use alternatives that sought higher densities around proposed station areas, accompanied by a mix of land uses. These two factors are critical in achieving a favorable approval rating by the Federal Transit Administration (FTA). Using the FTA New Starts criteria, Mr. Taylor was a featured speaker in a public involvement series for elected and appointed officials, as well as the general public. His presentations were focused on economic development, transit-oriented development, and the land use requirements for FTA approval. His speaking series was recorded for later rebroadcast on local government access television.

#### **Station Area Planning – Atlanta-Macon Intercity Passenger Rail Value Capture Analysis**

The proposed intercity service between Atlanta and Macon has historically shown a shortfall for operations. This study considers the emerging market along the 100 mile line to determine the market for development at key station areas. Mr. Taylor led the station area planning effort for six locations. For each station, a development potentials analysis was undertaken. The output from the station area planning was used as a financial strategy, using the concept of value capture, focused on the operations aspects of the projects.

#### **Cumberland Transit-oriented Development Study, Cobb County, GA**

Using a charrette format, Mr. Taylor was the lead charrette facilitator and urban designer for the transformation of one of Atlanta's premier "edge cities" into a sustainable, walkable urban center. The resulting Plan yielded an understanding of the setting, developing a grid of walkable streets, identifying key opportunity sites, locating the preferred alignment and station locations, preparing a TOD Regulating Plan, and proposing a Five-year Action Plan. A central recommendation was the use of a Smart Code to implement the Plan.

#### **City Center TOD, Cedar Hill, TX**

Mr. Taylor led the transit and station area planning effort to create a City Center along a proposed regional (commuter) rail line in the Dallas Metroplex. Cedar Hill is an identified station on the future DART line. The City creatively used funds from its Energy Efficiency Conservation Block Grant to prepare the plan. With a goal of creating a premier destination, the new transit-oriented development would help reduce VMT, lower energy consumption, and promote walkability. The plan focused development at a centrally-located station, and the entire City Center was connected with an urban circulator.

## **Station Area Planning, Virginia Beach Transit Extension Study, Virginia Beach, VA**

Hampton Roads Transit and the City of Virginia Beach embarked on an extension of the Norfolk light rail system. This 11 mile transit investment, with 12 stations, is designed to implement the City's adopted Comprehensive Plan, which is based on a series of Strategic Growth Areas (SGA). The SGAs lie directly along the proposed transit guideway. With the growth areas so associated, the station area planning, led by Mr. Taylor, is defined by three types – Core, Community, Neighborhood and Specialty. Applying a New Urbanism planning model, a set of station plans was designed to allocate the anticipated market demand along the corridor. This approach to station area planning reinforces walkability, reduces VMT, enhances transit ridership, and offers long-term value creation.

## **Bel-Red Multi-modal Corridor Plan Implementation, Bellevue, WA**

Serving as the urban design lead, Mr. Taylor led a charrette to begin the design process for implementing the Bel-Red home of the Microsoft Campus. This project includes an extensive combined pedestrian/bicycle network, complemented by a trail system through restored and enhanced wetlands. In addition, a new Sound Transit light rail line paralleled the new roadway that hosted the pedestrian realm, as well as a cycle track.

## **Triad Regional Rail MIS Study, Greensboro, NC**

Mr. Taylor led the TOD/land use portion of the Piedmont Authority for Regional Transportation's (PART) regional rail program. For this proposed 38 mile system, nine station system, there were four primary station types – Hub, Regional, Village and Specialty. Each corresponded to the nature of the transit corridor's function. Each of the stations was evaluated using the US Federal Transit Administration's New Starts template for land use. One of the goals was to integrate the station area planning into the transportation modeling process by adjusting Traffic Analysis Zones to reflect transit-supportive land use.

## **Transit-oriented Development (TOD) Planning – Lehigh Valley, PA**

LANTA, the Lehigh Valley's sole transit provider, is advancing its long range plan, *Moving LANTA Forward*, by evaluating key Trunk Corridors for the introduction of Bus Rapid Transit (BRT). The TOD focus will have two focal points – recommended Transit Hubs the corridors that connect them. Mr. Taylor is leading the TOD/Land Planning effort that includes LANTA and several jurisdictions along the corridors. The project entails conducting case studies of North American communities with successful BRT systems, corridor planning and implementation strategies. The effort also includes extensive stakeholder outreach. 2012

## **Transit-oriented Development (TOD) Strategy – Grand Rapids, MI**

As part of the update of the Rapid's Transit Master Plan, Mr. Taylor was the lead urban designer in developing the Plan's TOD strategy. The TOD concept is new to Grand Rapids, and the thrust of the effort was to illustrate where and how transit-supportive develop could occur at key stations on the proposed Bus Rapid Transit and Streetcar alignments. There were four components to the effort – review of Best Practices, proposed TOD policies, development of station area prototypes, and an Action Plan for specific station areas. The result was essentially a handbook for TOD implementation in the region. 2010

## ***Streetcars and Circulators***

### **Charlotte Streetcar Technical Advisory Services, Charlotte, NC.**

The City of Charlotte (NC) recommended the streetcar as the integrating technology to link five transit corridors and the two downtown terminals. Mr. Taylor initiated an on-call technical advisory services agreement with the Charlotte Area Transit System (CATS), in anticipation of a fully developed streetcar network. Under this agreement, CATS was provided with advice on alignments, multi-modal coordination in a common right-of-way, and technical criteria for in-street running.

### **Elizabeth Avenue Streetscape/Streetcar Coordination, Charlotte, NC**

Mr. Taylor served as the QA/QC manager for the City of Charlotte's project to implement an important streetscape for Elizabeth Avenue, since it is an extension of the proposed Trade Street Transitway. The streetscape is important because it traverses the downtown campus of the Central Piedmont Community College, fronts a proposed mixed use redevelopment project, and terminates at a major hospital complex.

The specific assignment was to make Elizabeth Avenue “streetcar ready”, since a total reconstruction was required. Through the analysis of the short- and long-term implications of the project, the City saw it could save substantially by installing the streetcar tracks with the initial streetscape construction, avoiding future disruption to users and traffic.

### **The Peachtree Streetcar, Atlanta, GA**

After extensive research and education, the non-profit Atlanta Streetcar, Inc. (ASI) was formed to implement the reintroduction of the streetcar in Peachtree Street. This street is the primary north/south spine that links Midtown with the Buckhead to the north and downtown to the south. ASI followed the Portland model of a private non-profit as the catalyst. Mr. Taylor was involved with ASI planning meetings that led to a general system plan and identified a phasing plan. As with all the streetcar projects, the accompanying land use and economic impacts of this urban mobility technology also are being identified. This effort ultimately led to the City of Atlanta’s streetcar program.

### **Winston-Salem Streetcar Feasibility Study, Winston-Salem, NC.**

Mr. Taylor served as the leader the charrette team that developed a general system plan and the first phase streetcar alignment. The City of Winston-Salem/s goal was the reintroduction of the streetcar in downtown. The initial alignment actually followed the original downtown streetcar line. The intent was to connect two major activity centers, ta large hospital and medical complex to the west, through downtown to a technology park to the east. Future phases anticipate extending the system to Wake Forest University, historic Old Salem and Winston-Salem State University. The City conducted a more detailed alignment and cost study, and Mr. Taylor led public involvement to finalize the preferred route and plan.

### **Streetcar Pre-feasibility Study, Jacksonville, FL**

Mr. Taylor served as the lead project planner for the Jacksonville Transit Authority’s assessment for the potential of creating several districts that could accommodate a streetcar. The purpose of a pre-feasibility study is to establish district criteria, identify the candidate districts and assess each district’s ability to accept the streetcar as a viable mode of transit. With multiple districts, there were several varied streetcar alignments. Once the evaluation was complete, the plan recommended the districts and alignments in rank order. The highest ranked a district became the priority to undergo a full feasibility study.

### **Point West Streetcar District Study, Sacramento, CA**

The Point West Transportation Management Association prepared the first privately funded streetcar study in the Sacramento region. Mr. Taylor served as the Project Manager. Considered a pre-feasibility effort, the study evaluated a multiplicity of factors to assess whether Point West was a candidate location for a streetcar. With a series of existing destinations – state fair, regional mall, hospital, office clusters, and hotels – and future opportunity areas – redevelopment and joint development, the area was deemed a candidate. An initial 2.5 mile “core” system was recommended.

### **Sacramento/West Sacramento Streetcar Project, Sacramento, CA**

Mr. Taylor served as the principal-in-charge of the three mile streetcar project to connect the Cities of Sacramento and West Sacramento, which are separated by the Sacramento River. This is a unique project supported by a four party agreement between the two cities and two transit districts. The project, having completed the feasibility phase, is in preliminary design. When completed, the streetcar will connect the two downtowns, historic “Old Sacramento”, the state capitol, the new downtown arena, convention center and other destinations. The project serves the dual roles of connecting and shaping - that is a fundamental premise of the streetcar. When complete, the streetcar will share track with the light rail system (and use its maintenance facility), both of which help reduce overall system costs.

### **Miami Streetcar, City of Miami, FL**

The City of Miami had Metro Rail (elevated heavy rail) and a connecting elevated Downtown People Mover that interchanged at the primary transit hub, Metro Center. As the City began to move north, driven by the emerging Design District dynamics, the City began to consider a streetcar as the integrating technology with the three systems. Equally important was to provide a mobility option for the Design District to Downtown, as complementary residential and commercial activities increased congestion. The streetcar then began to serve dual roles – a district circulator and a regional connector. Mr. Taylor served as the route planner and land use strategist.

## **Miami Beach Streetcar. City of Miami Beach, FL**

Similar to Miami, Mr. Taylor served as the route planner and land use strategist. There were twin factors that prompted the City to evaluate the streetcar as a component of its mobility network. The City's famous Art Deco district is home to some of the most luxurious hotels and entertainment venues. The street pattern and narrow rights-of-way added to the area's growing congestion. Escalating land values and competition for more intense development meant greater traffic mitigation. A complementary issue was the need to provide a means of workers from the mainland to get to and from their jobs. This meant the system could potentially be connected to the Miami streetcar and Metro Rail system. A creative solution emerged with a Miami Beach-serving loop linked to the City of Miami by a limited stop, higher speed streetcar. An operating plan was developed that integrated the two functions into a single system.

## **Downtown St. Petersburg Circulator Study, St. Petersburg, FL**

The purpose of this project was to determine the feasibility of adding transit service from downtown to central St. Petersburg, including Tropicana Field, home of the Tampa Bay Rays (Major League Baseball team), and ultimately to the Pinellas Beaches. The study evaluated various technologies including streetcar, elevated guideway and a loop bus for a series of potential alignments. Using a strong public involvement process, the technologies and system configurations were evaluated and recommendations of preferred alternatives made. Mr. Taylor led public involvement, land use and socio-economic analysis, development potential analysis, at-grade engineering, and assistance with station location and planning.

## **The Mobility Benefits of Streetcars, Community Streetcar Coalition, Washington, DC**

Mr. Taylor was the principal author of *The Mobility Benefits of Streetcars*, a paper prepared for the Community Streetcar Coalition. The Coalition is comprised cities, agencies, project sponsors and private companies that advocate for the funding and development of streetcar projects. While the economic benefits of the streetcar are well-documented, the transportation benefits are under-represented. To address the mobility benefits, Mr. Taylor employed a two-pronged approach - research of secondary sources and surveys and interviews of the four modern streetcar systems with a minimum of one year in operation. After reviewing some 150 documents and completing the surveys, the paper was divided into six sections: Introduction; The "New" Streetcar History - Only 15 Years; The Streetcar- for Today and Tomorrow; Supporting growth and Opportunity; The Mobility Benefits; and Summary. The paper was released by the Coalition at Rail-Volution 2015 In Dallas.

## ***Walkable, Sustainable Development***

### **Heart of the Triad - A Sustainable Community Design, Greensboro, NC**

Mr. Taylor led the innovative Heart of the Triad (HOT) planning process. HOT is located in the Piedmont region of North Carolina, anchored by Greensboro, High Point, and Winston-Salem. The area lost over 20,000 jobs in the last decade due to the declining tobacco, furniture and textile industries. As the region began considering how to reverse that trend, it realized a more comprehensive approach to revitalization was needed. A two-county, four city initiative was launched to address four critical factors - How to increase high quality employment; Protect the environmental assets; Offer enhanced mobility options; and Change fundamental development patterns.

The plan has a strong knowledge-based orientation, being located within a region with a high concentration of colleges and universities - Wake Forest, UNC Greensboro, Winston-Salem State, Guilford College, High Point, and North Carolina A&T. One of the innovative implementation strategies is a "central campus", shared by several of the universities. The campus can be the focus of an international Intellectual center.

HOT is an example of sustainable development that fully incorporates environmental, mobility, community, and economic considerations. The HOT Plan uses GIS-based technology to help the region develop integrated solutions. A dynamic charrette approach involved several hundred residents in the planning process. When completed, the region will have a coordinated strategy to reverse the losses of the last decade and chart a new, aggressive, coordinated approach to environmental protection, community design and economic development.

## **Ashley Bridge District Plan, Charleston, SC.**

The Ashley Bridge District (ABD) is the City of Charleston's first suburban area. Eight neighborhoods, dating from the 1920s to the 1960s, were beginning to show signs of stress from major highway widenings and uncontrolled commercial development. Serving as project principal, Mr. Taylor led a team to prepare an ABD Plan update. To achieve consensus for this high-visibility project, a series of activities was used:

- Neighborhood questionnaires
- Issues identification workshops
- Large/small group processes
- Agency coordination (City departments, Corps of Engineers, SCDOT, Historic Preservation Board)

Using a charrette process, the team prepared a plan in a series of five-day sessions. Plan proposals were illustrated through the use of computer-generated graphics. The ABD Plan was approved by the District residents, and the City Council adopted the plan and commissioned phase one improvements.

## **Pinellas by Design, Pinellas County, FL**

As a lead urban designer in a consultant team, Mr. Taylor contributed to an intensive community dialogue that evaluated redevelopment concepts for this built-out community. He helped develop and implement a visioning exercise for over 150 participants that drew concepts for the allocation of future community redevelopment. The consensus redevelopment concepts are being utilized by the local planning agency to direct future development efforts. An important element of this effort was the identification of public private partnership opportunities. A key driver in these opportunities was transportation – investments were focused in conjunction with future high speed rail, transit, and highway investments

## **Raritan River Strategy Plan, Middlesex County, NJ.**

This sixteen-mile River Strategy Plan is designed to open up the Raritan River as a regional boating destination. Ten Towns and Boroughs lie along the Raritan, and each has a variety of plans. However, there is no coherent, unified strategy to market and promote the River as a tourist attraction/venue. Working through the Middlesex County Improvement Authority (MCIA), HDR, with Mr. Taylor as the Project Manager, led a community based charrette process that incorporated existing waterfront plans and proposing new initiatives that emerged from the charrette. The Strategy included recommendations that were applicable to the entire River, and four Districts were defined.