Abstract

Clark County, Nevada is one of the fastest growing metropolitan regions in the United States. Population has doubled every decade since 1940, reaching 1.6 million in 2004, and is projected to reach 2.56 million by 2025. This rate of growth has outpaced regional efforts to deal with highway congestion, air quality, regional mobility and future quality-of-life.

This result has been a tremendous strain on the regional transportation system, including both highway and transit modes. During 2004, The Regional Transportation Commission (RTC) initiated this study to develop innovative approaches to improve future mobility.

Wilbur Smith Associates was asked to assist the RTC in developing the Transit SmartNet concept and an implementation strategy. Transit SmartNet proposes the integration of land use and public transportation services by identifying future high density population and employment areas and connecting them with high capacity transportation links. The resulting Transit SmartNet system will link BRT, Light Rail, Commuter Rail, Monorail, carpool and roadway options seamlessly with ITS elements to help to guide, predict, and encourage greater public transportation usage. This would also also encourage Transit Oriented Development (TOD) around a series of multi-modal nodes.

The study worked within the parameters of predicted growth and regional transportation plans and policies to identify potential high capacity corridors and high density nodes. The study identified a locations where for future infrastructure investment and land use decisions could be coordinated to ease implementation of future transportation modes.

Transit SmartNet is part of a visionary concept to create a regional, intelligent, seamless and sustainable transportation system. It provides a unifying basis for regional smart growth planning that is scalable and allows for the collaborative participation of local, regional, and state planning and operating agencies, communities, developers, and industry. The results and recommendations from the Transit SmartNet Study will be advanced by RTC in the 2006 Unified Planning Work Proram to develop a Regional Transit Strategy. The resulting strategy will be incorporated in future Regional Transportation Plans..
Background and Approach

Project Rationale

The *Transit SmartNet* concept provides a framework for smart growth planning and coordination at the scale of urban design and across regional systems. Physically, the nodes of a *Transit SmartNet* system could form a region-wide network of transportation terminals. These terminals would integrate transportation modes by providing greater trip planning information and modal options. At a *Transit SmartNet* terminal, or even in advance of arriving via internet connection, a traveler would be able to receive a real-time display of transit and rideshare options that satisfy their particular trip requirements. Information might include: point of origin, destination, vehicle arrival/departure times, and travel time estimates based on actual roadway conditions. With the incorporation of business services, communications connectivity, and other amenities, such as restaurants, clubs and fitness facilities, at the *Transit SmartNet* locations, the ease of transit system and ride share options will be greatly enhanced.

The practical planning value of the *Transit SmartNet* concept is realized through its ability to unify and leverage a diverse set of transportation planning and transportation demand management (TDM) objectives. These might include greater transit patronage and system efficiencies, reduction in the growth of VMT, increased utilization of private carriers (such as Club Ride), and increased use of the expanding Park-and-Ride and HOV systems. These improvements, coupled with both highway and transit system capacity enhancements, have the potential to reverse the current trend toward persistent congestion. Expansion of existing public transportation systems, particularly CAT and MAX, and fielding of efficient new systems in key corridors coupled with progressive land-use initiatives, such as transit oriented development (TOD), mixed-use overlay districts and in-fill development will be required as part of a comprehensive solution.

In sum, the *Transit SmartNet* concept, when fully developed, can provide a unifying basis for regional smart growth planning that is scalable and allows for the collaborative participation of local, regional, and state agencies as well as other communities of interest, including private sector developers and industries.

Project Purpose

For several years, the Las Vegas Valley Region has experienced among the highest national growth rates in population and vehicle miles traveled (VMT). This growth, largely propelled by urban sprawl, has placed a tremendous strain on the regional transportation system, including both highway and transit modes. Affected cities and counties in the Region and the RTC and SNRPC have conducted a number of studies to address current problems and future transportation needs. A promising regional strategy that can be envisioned as emerging from these studies is the development of “smart growth” and transit-oriented design nodes linked to a regional multi-modal transportation network (or t-portal system). This integrated system would provide trip-specific, real time alternative modal choices to the public through a web-based trip planning functionality (e-portal). The integration of higher density, in-fill urban design strategies with real time trip planning and mode selection alternatives has the potential to improve transit
efficiency and patronage and, concurrently, relieve automobile congestion in key freeways and arterials through the coordination of transportation and land-use planning.

**Project Approach**

A “master planning” approach was used to identify the various stages necessary to develop this concept into an element of the Regional Transportation Plan. It was necessary to identify potential smart growth-TOD nodes and the interconnecting transportation system by collating information and plans developed in the various local and regional studies and plans and through direct interaction with SNRPC Growth Summit workshops and the Clark County Growth Task Force. The following section of this Report lists the various studies and reports considered and their applicability to the Transit SmartNet Project.

The use of trip generation and trip purpose data and forecasts using the regional transportation demand model was beyond the scope of this Project but will be used in follow-on analysis. The optimum location for development of high-density nodes was derived primarily from two sources:

- Analysis of RTC population and employment forecasts
- The Clark County Mixed Use District Overlay Zone, developed by the Clark County Land-use Task Force in parallel with this Study

In the former case, current (2005) population and employment data by Traffic Analysis Zone (TAZ) were compared with year 2025 forecasts. These data were analyzed for growth trends and were presented on GIS base maps for the Region. Although this analysis allowed a numerical comparison of present and future population and employment distribution, it did not reveal areas in the Region where the rate of change was greatest over time.

Then the current and future population and employment numbers were analyzed on the basis of rate-of-change, an entirely different picture emerged. This analysis produced a clear picture of the future growth of high-density nodes around the periphery of the Region and generally located near key transportation facilities.

Another task of this study was to identify the transportation links necessary to connect the future high density nodes with an integrated multi-modal system. Because of the dynamic nature of the transportation system in the Region, this study’s approach was to consider “existing” and “potential” transportation corridors and modes and assess their ability to connect the emerging nodal development. Potential corridors and systems considered by this study were defined as those “planned” of “under study” by RTC.

Finally the results of the nodal analysis and potential transportation corridors and systems were combined on GIS base mapping. These results are presented in the Appendix to this report. Generally, these data shows that existing transportation facilities and those planned and under study will be able serve some of the emerging high density nodes. This analysis also shows that high capacity public transportation systems in key arterial corridors have the potential to relieve congestion on these facilities.
Several aspects of the original work scope for this project were deferred for later study after planned and under study elements of the Regional transit network are confirmed. For example, it was determined that it would be premature to define a Transit SmartNet program strategy and financial plan in advance of these decisions. Eventually, a financial plan for further development of the concept through fielding of a conceptual system must be developed. This plan will identify various funding alternatives by investigating public-private partnership opportunities, leveraging of existing studies/plans, and opportunities for integration of transit and emerging development with concurrent advantages to the developer and RTC.

Likewise, some aspects of the proposed Transit SmartNet e-portal system are under development by RTC as part of the Freeway and Arterial System of Transportation (FAST). FAST came under RTC management during the course of this study and has been given the responsibility to govern Intelligent Transportation System (ITS) development throughout the Las Vegas Valley. Elements such as dynamic message signs, traffic signal synchronization, ramp meters and real-time traffic cameras are controlled by FAST. Since ITS components make up a large portion of the Transit SmartNet concept, it will be necessary to have a high level of coordination between FAST and the Regional transit strategy developed from Transit SmartNet.
Project Summary

Purpose

This section details the extent to which Transit SmartNet would integrate and leverage transportation and transit systems, plans, and initiatives and facilitate cooperation among various stakeholders. Based on current planning Transit SmartNet has the potential to unite transportation systems and initiatives at the local and regional scale. Doing so will help to ensure that the Las Vegas Valley develops in a way which is intelligent, sustainable, and continues to provide a high quality of life for residents and visitors alike.

Introduction

The Need for Transit SmartNet

Transit SmartNet offers a system by which the explosive growth of Clark County can be accommodated and encouraged. Clark County is the fastest growing region in the country. The population has doubled every decade since 1900, seeing an overall increase from 405,000 people in 1977 to over 1.6 million today. Rapid population growth is expected to continue, with 2025 population estimated at 2.75 million people. Job growth has been nearly as rapid as population growth. In 1980, there were fewer than 500,000 jobs in this valley, a number that had swelled to 1.3 million by the year 2000. At present growth rates, it is expected that there will be almost 1.8 million jobs by 2010. Much of this job growth is centered around the Las Vegas Strip and downtown areas.

Exhibit 1: Population Growth in Clark County 1970-2025

1 SNPRC Southern Nevada Regional Policy Plan  February 22, 2001
This population and employment explosion has required a tremendous increase in mobility needs for the region. Traditionally reliant on the automobile, the area is now reaching a point where its very mobility is being threatened by congestion, increasing Vehicle Miles Traveled (VMT) and subsequent roadway gridlock. This fact is evident by a look at current and projected roadway Level of Service (LOS) failure within the Las Vegas Valley roadway network. These figures show that in 2002, roadway capacity was sufficient to ensure free flow traffic on almost 90% of the roads in the valley. However, if unabated, congestion is projected to lower the LOS to the point where between 70-80% of roads will operate at a failing LOS 40-100% of the time.

Exhibit 3: Level Of Service Failure on Las Vegas Valley Roads, 2002 and 2025

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2 RTC and “Long Range Transit Plan” May 2004
This impending gridlock is convincing evidence that the Las Vegas Valley can no longer afford to “pave its way out of congestion”. Even if an aggressive roadway improvement program is followed, it is clear that it will not provide nearly enough capacity to support the mobility needs of the Valley in the coming decades. A decrease in mobility will lead to a subsequent decreasing quality of life for all residents and visitors to the Las Vegas Valley. Changes to the transportation system, focusing on the installation of high-capacity public transit elements, must be implemented now in order to provide for sustained mobility in 5, 10, and 20 years.

Certainly, RTC, SNRPC and other organizations have been highly proactive to address this impending mobility problem. Dozens of studies have made excellent progress to assess the problem and determine possible transportation and land use solutions. What is still missing, however, is one coordinated vision to link together the valuable information from these various plans and studies. *Transit SmartNet*’s goal is to provide this coordinated vision.

**Transit SmartNet Concept**

The *Transit SmartNet* concept provides a framework for comprehensive planning and coordination at the local and regional scales for the Las Vegas Valley. Currently, over a dozen transportation development plans and transportation improvement projects exist for the region. Though many of these plans promote regional cooperation and interagency coordination, very little physical planning has been done toward this end.

*Transit SmartNet* promotes the creation of physical nodes that would form the backbone of a region-wide transportation network. These terminals would facilitate the integration of transportation modes by providing greater trip planning information and options, and by concentrating transit access at one convenient point. Furthermore, their status as regional transportation transfer stations would make them ideally positioned to become the cores of high density, mixed used, transit oriented developments.

*Transit SmartNet* would employ an extensive “e-portal” system to assist with passenger information and ticketing needs. All *Transit SmartNet* terminals would be equipped with state of the art informational kiosks that would enable the traveler to receive a real-time display of transit and rideshare options. Route information including the point of origin, destination and adherence to schedule would be easily accessible. This same data would be available on line, accessible to those travelers who wish to gather route information prior to arriving at the station. The inclusion of multiple modes (monorail, BRT, rail, bus, etc.) in the *Transit SmartNet* database would ensure that multiple options are offered to each traveler.

Each *Transit SmartNet* terminal would be equipped with multiple services and retail offerings. Possible elements at a terminal include business services, communications technology, restaurants, retail venues, clubs and fitness facilities. Other services could be included as appropriate to the location, or by demand of citizens surrounding the transit node. Together, these services will serve to greatly enhance the experience of the traveler. They also have the potential to serve as an attraction in and of themselves, such as the case of Grand Central or Penn Station in New York City.
The practical planning value of the *Transit SmartNet* concept is realized in its ability to unify and leverage a disparate set of transportation planning and transportation demand management (TDM) objectives:

- Greater transit use and system utilization,
- Club Ride program expansion,
- Reduced Single Occupancy Vehicle Use,
- Increased walking or bicycling,
- Improved Level of Service for necessary automobile travel,
- VMT reduction,
- HOV system and other capacity enhancements, etc.

In addition, it would unify the range of existing and potential transit systems in the Las Vegas Valley:

- Bus rapid transit [BRT],
- Light rail [LRT],
- Monorail,
- MagLev,
- CAT,
- Bicycle,
- Pedestrian, etc.

Finally, it would help to guide and encourage innovative land use initiatives:

- Transit oriented development [TOD],
- Step down densities around transit hubs,
- Transit overlay districts,
- A regional network of nodes and links,
- In-fill development, etc.

In summary, *Transit SmartNet* can provide a methodology to integrate the multiple transportation options and land use plans in the Las Vegas Valley region. It urges the creation of a seamless, unified transportation system that can then operate as a skeleton for regional planning efforts.

Implementation of *Transit SmartNet* will require the collaborative participation of local, regional, and state planning and operating agencies. In addition, it calls for ongoing and significant input from other communities of interest, including private sector developers, the public, and private industries.

**Transit SmartNet Regional Context**

Today in the Las Vegas Valley, development is proceeding at such a rapid pace that any planning efforts quickly become obsolete. Development is largely market driven, with developers and industries deciding where many large-scale building complexes will occur. This form of planning is simply not sustainable in light of the tremendous population growth, job
creation, and regional mobility needs. Instead, a long-range, regional plan that ties together land use, development, and transportation is highly necessary. The Transit SmartNet concept is poised to act as facilitator of a regional, comprehensive plan.

**Plans to Consider**

Any plan such as Transit SmartNet must be considered in the context of the plans and projects being undertaken by numerous other organizations in Clark County and the Las Vegas Valley. A quick synopsis of many of these plans is included in the following table. A more thorough description of each plan can be found in Appendix 1.

<table>
<thead>
<tr>
<th>Plan Name</th>
<th>Date</th>
<th>Major Points</th>
<th>Transit SmartNet Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Las Vegas Valley Long Range Transit Plan</td>
<td>May-04</td>
<td>Ranks 81 transportation corridors ranging from &quot;Very High Potential&quot; to &quot;Low Potential&quot;. Suggests high capacity transit mode for each.</td>
<td>Very high. TSN supports many of the plans conclusions</td>
</tr>
<tr>
<td>Boulder Highway Corridor Study</td>
<td>Apr-04</td>
<td>Evaluates 16 mile Boulder Highway Stretch for modal suitability</td>
<td>Very High. TSN incorporates the findings of this study</td>
</tr>
<tr>
<td>Las Vegas Valley Transit System Development Plan</td>
<td>May-02</td>
<td>Evaluates 11 corridors for modal suitability and cost</td>
<td>High. TSN supports many of the plans conclusions</td>
</tr>
<tr>
<td>Southern Nevada Regional Policy Plan</td>
<td>Feb-01</td>
<td>Served as regional policy plan for guiding growth. Suggested coordinated, regional transportation system and mixed-use developments</td>
<td>Very high. TSN offers coordinated, regional vision set forth in plan.</td>
</tr>
<tr>
<td>CATRail Corridor Feasibility Study</td>
<td>May-04</td>
<td>Offers statistics and reasons to support LRT and BRT development along the Henderson to Las Vegas Resort to North Las Vegas corridor</td>
<td>High. TSN considers findings of study. Both routes would benefit from coordination via the TSN system</td>
</tr>
<tr>
<td>RTC Short Range Transit Plan 2004-2008</td>
<td>Jun-04</td>
<td>Sets out RTC objectives, policies, and proposals for 7 public transportation elements between 2004-2008.</td>
<td>High. TSN would coordinate these elements into one cohesive, regional system</td>
</tr>
<tr>
<td>RTP For FY 2003-2005 and TIP for FY 2004-2006</td>
<td>2003</td>
<td>Contains extensive descriptions of every transportation project scope, financing plan, etc. that is programmed</td>
<td>High. TSN needs to be aware of and work within the RTP and TIP</td>
</tr>
<tr>
<td>NDOT Statewide TIP FY 2004-2006</td>
<td>2004</td>
<td>This is considered in the previous RTP/TIP</td>
<td>High. TSN needs to be aware of and work within the RTP and TIP</td>
</tr>
<tr>
<td>City of Las Vegas Master Plan</td>
<td>Jan-02</td>
<td>Guides growth and development in the City of Las Vegas. Urges a coordinated land use and transportation policy</td>
<td>Very High. TSN would work in conjunction with the Planning Dept. and their long-range plans</td>
</tr>
<tr>
<td>Clark County Comprehensive Transportation Plan</td>
<td>1983</td>
<td>Outdated, but was at one point the growth plan for the region.</td>
<td>Med-Low. TSN should be aware of this plan, but operate within more current plans.</td>
</tr>
</tbody>
</table>
Other Agencies/Programs to Consider

In addition to the aforementioned plans, there are several other programs in operation that have some bearing on Transit SmartNet planning:

Club Ride (RTC)
This program is an incentive program sponsored by the RTC to encourage commuters to use methods such as carpool, carpool, bus, walk, or bicycle to get to and from work. The program runs monthly prize drawings for participating commuters, publishes a monthly newsletter, and offers merchant discounts at local and national merchants. It is expected that this program would continue to be expanded under Transit SmartNet, perhaps with additional components to initially attract riders to the transit network.

FAST (RTC)
The Freeway and Arterial System of Transportation is now a part of the RTC, and has been given the responsibility to govern Intelligent Transportation System (ITS) development throughout the Las Vegas Valley. Elements such as dynamic message signs, traffic signal synchronization, ramp meters and real-time traffic cameras are controlled by FAST. Since ITS components make up a large portion of the Transit SmartNet concept, it would be necessary to have a high level of involvement and coordination with FAST.

Case Studies and Inspirations

Other cities and transit agencies have achieved success with the type of multi modal transit center equipped with ITS technology that is proposed in the Transit SmartNet concept.

Denver, Colorado Union Station

Still in the planning stages, Denver’s Union station promises to be the nations “most comprehensive multimodal transit center.” When completed, the station will provide a transfer point for transit modes including: commuter rail, light rail, bus lines, specialty shuttles, airport service, bicyclists, pedestrians, and rental cars. Information on all these services will be supplied by staffed booths, public address systems, and real-time signage and arrival/departure boards. The station is expected to provide an exciting and convenient center for transportation and downtown access for the greater Denver metropolitan area.
Portland, Oregon Downtown Transit Mall

Portland’s transit mall covers 36 blocks of 5th and 6th Avenues in Downtown Portland. Multiple stops along this mall serve to facilitate easy transferring between MAX Light Rail, 60 TriMet bus lines, 5 C-TRAN bus lines, the Portland Streetcar, Bicyclists, and Pedestrians. Users of transit can usually wait in covered waiting areas, which are equipped with route information and real-time arrival and departure information. The entire system is very user friendly and has fitted well into the urban environment, serving the dual purposes of attracting higher transit usage and attracting more people to the services and amenities offered by downtown Portland.

Minneapolis, Minnesota Uptown Transit Station

The Minneapolis Uptown Transit Center presently serves buses, bicyclists, and pedestrians. It is slated to be a future stop when the Light Rail, Trolley car, and greenway bicycle corridor expansion projects come to fruition. Currently, the transit center offers climate controlled waiting areas with real time informational boards. It is also developing plans to incorporate retail and concessionaires into the space.

The Uptown center is drawing many ideas for development from the Eagan transit station, a bus and bicycle station situated in suburban Minnesota. This station has taken the lead in offering a mixture of retail, restaurant, and services to commuters. Though presently limited to bicycle, bus, and automobile, it is hoped that this station may one day include light rail or commuter rail connections.
**Transit SmartNet Comparison**

**Goods and Services Offered in Stations**

These examples offer a guide to the development of *Transit SmartNet* nodes. Clearly, the architecture, design, and services included in each station will be decided by consensus from public agencies, developers, and the public at-large. Stations will also vary by location: stations in outlying suburbs would be expected to look and operate much differently than those in the Central Business District. Possible elements inside stations include the following:

- Newspaper stores/stands,
- Coffee shops and cafes,
- Mid-scale restaurants,
- Convenience stores,
- Farmers market,
- Small grocery store,
- Dry cleaners,
- Post office,
- Shoeshine,
- Beauty Salon,
- Restrooms,
- Pay phones,
- Banks,
- Tailors,
- Bicycle lockers and changing rooms,
- Bicycle maintenance rooms,
- Bookstore,
- Ticketing machines and kiosks,
- Staffed informational booth, etc.

**Role of Stations in Neighborhood Development**

*Transit SmartNet* nodes have the potential to greatly influence neighborhood development and urban planning. It is envisioned that this development could be somewhat “three-tiered” and extrapolate out from the node to the neighborhood at large.

**Tier 1: The node as a high-density center**

As the central point for multiple transportation nodes, *Transit SmartNet* hubs can be expected to be thriving, busy and vibrant centers. As such, they have the ability to revitalize neighborhoods and become a draw in and of themselves. Dramatic architecture, a wide range of services, and intelligent locational choice will all help to create *Transit SmartNet* hubs that are true assets to the community at large.
This can be accomplished by creating the nodes as public-private joint development projects. In joint development projects, private entities supply some of the initial construction and ROW costs for a center because of the advantages offered to the business by its proximity to transit. The remainder is put forward by the transit provider, usually through some form of bonding or grant from the Federal Transit Administration (FTA).

The FTA regards joint developments very favorably because lease revenue from the private entity flows directly to the transit provider, thus providing a long-term source of revenue to the transit provider. One example of this is the Englewood City Center in Denver, Colorado. This center was built by a combination of private and RTD (Regional Transportation District) funds, and includes a Civic/Cultural Center, Retail and entertainment options, 500 + residential units and shared parking, all clustered around a Light Rail Station and Transit Hub that services bus, light rail, pedestrians, and bicyclists.

**Tier 2: The node as a center for Transit Oriented Development (TOD)**

*Transit SmartNet* nodes could then serve as a vibrant core for Transit Oriented Development. TOD’s are areas where jobs, housing, and daily conveniences are centered around transit centers. They are high-intensity and mixed-use, built in a pedestrian friendly design and at a human scale. They offer an alternative to suburban, low-density living and at the same time provide the critical mass of people necessary to make transit an efficient and viable option.

Basic elements of a TOD include the following three features:

*Compact Development*

TOD’s generally encourage higher employment and residential densities within a half-mile radius of a transit center. Their high-intensity development creates a critical mass of people to use the TOD’s streets, public spaces, and transit elements. In addition, the compact scale encourages people to walk or bicycle instead of driving for every activity. It is important to note that intensity should be gradually built up, with the node as its center, in order to remain compatible with the scale of existing neighborhoods.

*Mixed Uses*

Currently in America, land uses are distributed into isolated parcels of residents, shopping, or work places. This serves to encourage the use of the automobile to drive between these parcels. In addition, it results in certain areas being active for only part of a day (imagine a CBD after 5pm). TOD’s combat both of these issues by offering diverse, complementary high-activity uses such as retail, professional services, housing, and employment close to transit. A mixture of housing (apartments, condos, and single family homes) is usually offered, as well as civic amenities such as libraries, post offices, and other government buildings.

*Pedestrian-Friendly Design*

TOD’s strive to create a vibrant, pedestrian-scale environment that is attractive to those on foot or bicycle as well as those in an automobile. Building and site designs in TOD’s should create
pleasant, enjoyable urban places that make walking an attractive option. They can feature pedestrian scaled lighting, art, and street furniture, short blocks with active street fronts, and traffic calming to promote pedestrian feelings of comfort and safety.

**Tier 3: The transition area to a larger service area**

The third tier around a station will be the transition zone from higher density TOD to lower density, pre-existing, suburban densities. These suburban areas are included in the service area for each Transit SmartNet node. Subsequently, each service area may be quite extensive. In addition, it may include many different land uses such as suburban, rural, and urban within the same service area. The value of Transit SmartNet, and its ultimate success, will depend on its ability to seamlessly service all of these land types within the same service area. The use of multiple transit modes will help to facilitate seamless transportation connections throughout the region. In addition, the creative use of ITS technology will help to ensure that Transit SmartNet is accessible to all citizens within a service area.

**Transit SmartNet and ITS**

Transit SmartNet will rely on several different technologically advanced systems to ensure smooth operations and easy public interaction. This includes an extensive ITS system to manage traffic and transit operations. It also includes an extensive “e-portal” system to facilitate consumer interaction and use of the system.

**Transit SmartNet ITS Elements**

ITS elements such as ramp metering, traffic signalization, Variable Message Signs (VMS), Traffic Monitoring Stations, CCTV, ITS data archiving system, an Incident Management Team and a Traffic Operations Center will all be employed to manage transportation elements of Transit SmartNet. Many of these elements are already in place in the Las Vegas Valley, under the jurisdiction of FAST. It is expected that these elements will be elaborated on and expanded in conjunction with Transit SmartNet implementation.

**Transit SmartNet E-portal**

The E-portal element includes features present at Transit SmartNet terminals and online. At each terminal, kiosks will be available that allow travelers to purchase tickets, plan a journey, or check on the schedule of a known trip. All transit elements will be tied into these kiosks, so that multiple travel options are possible. In addition, constantly updated informational boards will track the progress of each transit mode and advise travelers about their adherence to schedule.

Online, travelers will be able to purchase tickets remotely, plan a journey, or check on the status of a known route. This information will be available to everyone who can access the internet, and will not be restricted by any passwords or keys. The RTC has several planned systems, such as the Web-Based Transit Trip Planning System (RFP 001-05 July 2004) and the Regional Passenger Information System (June 2004). Transit SmartNet will utilize these technologies, but go beyond them to tie together all transit modes, transit center nodes, and the public at large.
Conclusion

Transit SmartNet offers a linked, comprehensive and multimodal transportation solution to the mobility problems plaguing the Las Vegas Valley and Clark County. It provides travelers with a seamless, technologically advanced, efficient and attractive transit network that may employ multiple modes to reach a single location. Its nodes provide a central location where travelers may board transit, transfer to a different line, or just enjoy the amenities and surroundings of a bustling station. It provides a viable and attractive alternative to the single use automobile for all citizens of the Region and visitors.

However, Transit SmartNet offers more than just a transportation solution. By virtue of its long-range development view, it offers a skeleton for future growth planning that strives to center new growth around high-density, mixed-use hubs. The “three-tiered” development approach attempts to create the transit center as a vibrant core, surrounded by a mixed-use TOD, and linked by transit to the larger transit service area. A long-range (10-25 years), phased implementation plan for Transit SmartNet will ensure that it precedes, rather than follows, growth.

In all, the Transit SmartNet concept offers a coordinated development approach that will assist the Las Vegas Valley in guiding its explosive population and employment growth. It will help to create a community that is attractive, vibrant, and offers a high level of mobility choices. It will continue to ensure that a high quality of life is enjoyed by all who live, recreate, or conduct business in the Las Vegas Valley Region, now and into the future.
Appendix

- Transit SmartNet Presentation for RTC June 9, 2005
- RTC Agenda Item and Staff Recommendations