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* Vision North Texas is able to carry out this initiative because of the support of its sponsors. The 2009 and 2010 sponsors are listed below.
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Executive Summary

North Texas – the sixteen county region surrounding Dallas and Fort Worth – is the fourth largest region in the nation. Its population is expected to reach almost 12 million by the year 2050. How can North Texas accommodate that growth? What quality of life will residents experience ten, twenty or forty years from now? The decisions made today by investors, homeowners, businesses and other stakeholders will determine the answers to these questions.

Vision North Texas is a private, public and academic partnership created to serve as a forum for dialogue and action on these important issues. Beginning with a regional visioning workshop in 2005, the partnership has involved people from all parts of the region in the consideration of choices for the region's future. After five years of workshops, presentations, research and debate, seven conclusions are clear:

* The North Texas region will face a significant amount of growth in the next several decades.
* Current infrastructure is not adequate to meet the needs of this growth.
* A continuation of the development patterns of the past leads to significant impacts on the region’s air, water, land and natural resources.
* The market of the future is more likely to want a different type of community – one that is more compact, walkable and with natural assets and urban amenities nearby.
* The past patterns cannot be changed by the actions of one or a few decision-makers. Choices made by many stakeholders will affect the result.
* A shared vision and more complete information for these stakeholders offers the region a better chance to achieve a desirable future.
* North Texans want a future that is better than the one forecast by a continuation of ‘business as usual’ trends.

This North Texas 2050 document describes the preferred future envisioned by Vision North Texas participants. It is the result of collaboration of experts in many professional fields, input of interested residents and direction from regional leaders. The document contains two major sections that present a 2050 vision and the actions to achieve it.

The first major section, A Vision for North Texas, proposes a Vision Statement and a set of twelve Guiding Principles for the region’s growth and development. It describes a preferred future for North Texas by identifying five policy areas (natural, rural, separate community, outer tier and inner tier), each with its own challenges and opportunities, and two types of important centers (employment centers and mixed use centers) that are focal points for the region and its communities. This physical development pattern is served by an investment framework that integrates eight areas of investment – regional ecosystem, community character and form, economy, housing, mobility, climate resilience, education and health. A set of policy recommendations addresses the role of this investment framework throughout the region and in each policy area and type of center.

The second major section, Action Package, identifies the tools and techniques needed for action to achieve this vision. The action package includes incentives, best practices, model ordinances and templates, technical assistance, benchmarks & indicators, new institutions/entities, regional coordination & collaboration, and communication. It concludes with a set of priority actions for 2010 – a list of the ‘top 20’ items that should receive the greatest amount of attention and action, and a list of the ‘next 10’ items that address individual issues and innovative research. This proposed action agenda should be the focus of next steps to achieve the North Texas 2050 preferred future.
Overview

Business as Usual – Not the Preferred Future

If current trends continue, the 16-county North Texas region will have over 75% more people in 2030 than in 2000, and the population will more than double by 2050. These trends create a ‘business as usual’ future for North Texas that is very different from the quality of life people find in the region today.

New neighborhoods built by 2030 will be developed at substantially lower densities than those in existing urban areas. Such low density neighborhoods mean that almost all trips must be by car, adding to traffic congestion and air pollution. Health research has documented higher levels of obesity and related problems for residents of these neighborhoods, leading to increased pressures on the region’s health care system.

Due to this development pattern, the region is expected to lose 900,000 acres of agricultural land, as well as substantial areas of natural habitat. The amount of impervious surface in the region (buildings and pavement) will double, increasing runoff and affecting water quality in streams, severity of floods and the temperatures experienced by people in the region’s urban areas. More than half of the new households will live in the watersheds of the region’s water supply lakes, affecting the water quality of these lakes and the drinking water they provide.

Over 1/3 of the region’s households will live outside today’s urban areas. In addition to these effects noted above, this shift also makes it less likely that the existing neighborhoods and communities closer to the region’s core will remain vital and desirable because infrastructure investments and tax base will be focused on the newer, outlying urban areas.

‘Business as usual’ means additional infrastructure but, with current resources, investments cannot keep pace with demand. For transportation facilities, the anticipated investment of almost $71 billion from 2007 to 2030 does not improve conditions. Instead, it results in 66% more hours lost to travel delay in 2030 and a congestion cost of $6.6 billion (compared to $4.2 billion in 2007). In 2050, existing water supplies are not sufficient to meet the needs of this urban area and North Texans will need 21% more electricity production capacity than is currently available.

Finally, this development pattern may not even offer the housing choices that the market of the future will demand. Stakeholder preferences, changing demographics and lifestyle choices, new technologies for work and communication, and economic options for businesses and employees all suggest that the market of the future will not be met by the housing options of the past. Instead, market demand is expected to favor more compact neighborhoods where walking and biking are feasible options for many trips and where a resident can enjoy both the advantages of an urban location as well as the assets of a natural setting.

North Texas has grown successfully and dramatically over the past 40 years. But more of the same will not be successful or sustainable for the next 40 years. This conclusion – and the desire for a future that is better than this ‘business as usual’ scenario – has been supported consistently in discussions with North Texans during the past five years. Through the work of Vision North Texas, a new vision for the future has emerged that accommodates anticipated growth and offers a higher quality of life and a better future. This North Texas 2050 document presents this preferred future and proposes action to make it a reality.
Vision North Texas

The Partnership

Vision North Texas is a partnership of private, public, and academic organizations working to increase awareness about the growth expected in North Texas and to involve people and organizations in initiatives that accommodate that growth successfully and sustainably. The partnerships’ three Charter Sponsors are the Urban Land Institute’s North Texas District Council (ULINT), the North Central Texas Council of Governments (NCTCOG) and the University of Texas at Arlington (UTA); many other organizations participate as partners and sponsors. Vision North Texas’ activities are directed by a 10-member Management Committee representing the Charter Sponsors and other leaders in the private, public and academic sectors, and are guided by more than 75 Advisors representing key private and public sector entities.

Vision North Texas brings together people from diverse backgrounds and perspectives to discuss common interests, understand differences, and find solutions. It educates people about the change and growth our region is facing, and about the options we have to successfully accommodate this growth. It is the region’s forum to debate and agree on a shared vision for our region and a practical action program to create that future. It provides North Texas decision-makers with the tools they need to make better choices that will make this vision a reality.

Vision North Texas Activities and Accomplishments

The Vision North Texas partnership began its work by hosting a regional visioning workshop, held in April 2005 at the University of Texas at Arlington. This workshop brought together a diverse group of nearly 200 stakeholders from across the region to discuss alternatives to the pattern of urban growth currently projected for the area. During the visioning workshop, participants defined 15 alternative development scenarios that could provide increased quality of life, sustainability and economic vitality for the people who will live and work here in the future. Evaluation of these scenarios showed they could provide North Texas with significant economic and environmental benefits—more than $15 billion in transportation cost savings, in one case.

Following the 2005 workshop, leaders from across the region urged Vision North Texas to continue this important work. Vision North Texas has now completed more than 150 workshops and presentations and conducted research on issues such as creation of a regional greenprint and support for development best practices. A Leadership Summit in 2006 engaged the elected and appointed leaders of the regions’ cities and counties. In 2007 and 2008, four subregional workshops involved diverse stakeholders throughout the region in a more detailed discussion of the best ways to accommodate anticipated growth. Since 2005, Vision North Texas has involved and heard from hundreds of stakeholders who share a vision for a sustainable North Texas and who overwhelmingly urged our region to take action.

In September 2007, the Vision North Texas leadership began an ambitious effort to create North Texas 2050. The process to develop this ‘gamebook’ has included three phases of work, extensive research and participation by a wide range of stakeholders, leaders and decision-makers. Each phase has produced a major report and has concluded with a stakeholder event. These results are summarized below and are documented in reports available at www.visionnorthtexas.org.

Regional Choices for North Texas

This report contains information and research on the range of issues affecting the lives of the people who live and work in North Texas now and in the future. It was developed through a collaborative research effort including experts in fields from housing to forestry to urban design. The report establishes a baseline of information about the current characteristics of the North Texas region. It summarizes
the region's current plans for its future and projections of growth trends, both of which generally describe the expected future under 'business as usual'. It also describes efforts that are already underway that are changing those trends. Lastly, it suggests four possible alternatives to the 'business as usual' future.

This report was presented and discussed at a Regional Summit held in December 2008. Expert panelists and participants reviewed the report and discussed its implications for specific issues such as water and energy. Summit participants strongly supported the need for a future that was better than 'business as usual'. They provided feedback on the set of potential alternatives to that future.

**Scenarios**

In early 2009, the Vision North Texas Research Team used this stakeholder input to finalize a set of five alternative futures for the region. In all cases, the region was expected to have about 9.5 million residents and 5.6 million jobs in 2030 and almost 12 million residents and over 7 million jobs in 2050.

**Scenario 1: Business as Usual**

This scenario represents the region as it will exist in 2030 if private and public decision-makers continue in the direction the region is headed today. It is based on the North Central Texas Council of Governments 2030 Forecast and distribution of growth, with additional assumptions regarding development patterns in the region's outlying counties. Exhibit 2.1 shows the concept for this scenario.

**Scenario 2: Connected Centers**

This scenario envisions a region where people have more choices about how they connect to the places where they live, work and play. Exhibit 2.2 indicates the general concept applied to the region.

With this scenario, many human-scale mixed use centers would be located throughout North Texas. These centers might be similar to the development projects created in recent years near DART
light rail stations. The investment framework associated with this scenario emphasizes mobility choices within and between the centers, including trails/paths, public transportation (bus, streetcar, light rail and commuter rail) and routes for travel by car. In Exhibit 2.2, important roadway connections are shown in brown and important rail connections are shown in green.

**Scenario 3: Return on Investment**
This scenario envisions a region that maximizes the benefit received from the extensive investment taxpayers and property owners have made in the region's existing infrastructure and development pattern. Exhibit 2.3 shows the scenario diagram for this alternative, with blue shading in the area that is currently included in transportation planning. The green shading shows areas that are generally urban (they have existing development or existing infrastructure). In this scenario, the growth through 2030 would be mostly contained in these green areas, where urban-scale infrastructure already exists. Development would emphasize infill, revitalization and maintenance of existing communities.

**Scenario 4: Diverse, Distinct Communities**
This scenario creates a region with different sorts of communities and centers, built on the traditional character of regional communities but designed to meet the needs of the region's future markets. Instead of focusing on quantities (of new population or of facility capacity), it focuses on qualities – the features, places and experiences that make one community stand out from another and that encourage residents to develop strong and lasting ties to their own community. Exhibit 2.4 shows the scenario diagram for this alternative. It supports reinvestment and development in downtown Dallas, downtown Fort Worth and in the downtowns of other communities around the region, providing regional support for the efforts many of these communities have underway.
Scenario 5: Green Region
This alternative emphasizes green development or natural assets as the foundation for future regional growth. Exhibit 2.5 shows the scenario diagram of this concept. It is based on an initial identification of natural assets and open spaces that create a ‘green infrastructure’ for the region and that should be protected or enhanced. It also emphasizes support for green jobs, the use of alternative energy sources and LEED building standards, and sustainable community design.

Exhibit 2.5: Green Region (Scenario 5)

Alternatives Analysis
A research team of experts evaluated these alternative futures for the region. The results were striking. All four alternatives did a better job of addressing transportation concerns compared to the Business As Usual scenario. The Health Research Team concluded that the Diverse, Distinct Communities and Green Region scenarios were most likely to support healthy people and communities. Housing indicators suggest that the Connected Centers scenario would do the most to achieve objectives for housing intensity and affordability. The Return on Investment and Green Region scenarios were most successful in addressing water and natural asset objectives.

A stakeholder session in September 2009 provided the opportunity for North Texans to discuss these results and add their own perspectives. Participants provided input on the advantages and drawbacks of the four alternative scenarios. They strongly supported a preferred future that was better than business as usual.

North Texas 2050
This North Texas 2050 document is the culmination of the Vision North Texas initiative. Based on stakeholder input, expert research and the guidance of regional leaders, its Vision for North Texas (Chapter 4) describes a future that current residents would like to achieve and its Action Package (Chapter 5) proposes tools and techniques that can be used by many different private and public decision-makers to help achieve this regional vision.

Following the release of North Texas 2050 at the Regional Summit in March 2010, the Vision North Texas Charter Sponsors, partners and other public and private organizations will be asked to consider these recommendations, endorse this vision and use their own investments and decisions to help achieve this preferred future.
People live in North Texas for many reasons – some were born here and others moved here for school or a job opportunity. One of the main goals of Vision North Texas is to gain a better understanding of the people who live and work here today and those who are expected to be here in the future. “What kind of place do North Texans want for living and working?” was asked continually throughout the process.

Current research shows that North Texas is growing, aging and becoming more ethnically diverse. Where people live and work today will not be the same in 2050 due to the changes in demographics, as well as changing technology, lifestyle choices, job markets, transportation choices and other factors. For example, baby boomers are retiring and moving into a different phase of their lives. Their housing preference is likely to change as a result.

In order for the North Texas region to be as successful and sustainable as possible in the future, the changing needs and preferences of the people who live and work here must be understood. The area needs to be ready for this expanding and changing market demand. In this chapter of the report, the current and future demographics of North Texas residents are examined.

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**Existing Conditions**

**Regional Population**

The sixteen county region that is the focus of Vision North Texas had slightly more than a half million people when the 20th century began (Exhibit 3.1). By the beginning of the 21st century, the region’s population had increased nearly ten-fold, to 5.3 million. Most of that growth occurred after World War II, as this region saw the dramatic expansion of jobs and growth of suburban neighborhoods that characterized much of the Sunbelt.

Today, the sixteen-county North Central Texas region is home to over 6.5 million people. It is more populous than many countries including Jordan, Denmark, Finland, Norway, and New Zealand. The region is the 4th largest nationwide after only New York, Los Angeles and Chicago. Nearly eighty-six percent of the region’s population is concentrated in four core counties: Collin, Dallas, Denton and Tarrant.

Exhibit 3.2 reflects the sixteen-county population totals for the latest Census (2000) and the NCTCOG population totals (2008). The population of each county has increased by an average of thirty-one

1 Much of the information in this chapter is drawn from more detailed analysis in earlier Vision North Texas reports. Please review “Regional Choices for North Texas” and “North Texas Alternative Futures” for more information.
percent over the last eight years. Rockwall County experienced the highest growth rate at seventy-six percent and Dallas County was among the lowest at ten percent. Despite the low population increase, Dallas County still holds the largest share, thirty-seven percent, of the 6.5 million people who reside in the North Texas region.

### Population Density

The 6.5 million people living in North Texas are not evenly distributed across the 16-county region. The most densely populated county is Dallas with more than four people for each acre of land. The least populated county is Palo Pinto. Located on the western edge of the region, Palo Pinto has twenty-one acres of land for every person living in the county. Over the last eight years, all of the core counties and many of the outer counties experienced an increase in population density. Rockwall and Collin counties showed the greatest percentage change in density. For some counties, the change was insignificant. No county experienced a decline in density.

### Exhibit 3.2: Population Density by County, 2000 and 2009

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Collin</td>
<td>491,675</td>
<td>748,050</td>
<td>52%</td>
<td>566,851</td>
<td>0.9</td>
<td>1.3</td>
<td>52%</td>
</tr>
<tr>
<td>Dallas</td>
<td>2,218,899</td>
<td>2,451,800</td>
<td>10%</td>
<td>581,279</td>
<td>3.8</td>
<td>4.2</td>
<td>10%</td>
</tr>
<tr>
<td>Denton</td>
<td>432,976</td>
<td>614,650</td>
<td>42%</td>
<td>610,108</td>
<td>0.7</td>
<td>1</td>
<td>42%</td>
</tr>
<tr>
<td>Ellis</td>
<td>111,360</td>
<td>147,850</td>
<td>33%</td>
<td>608,915</td>
<td>0.2</td>
<td>0.2</td>
<td>33%</td>
</tr>
<tr>
<td>Erath</td>
<td>33,001</td>
<td>38,550</td>
<td>17%</td>
<td>697,446</td>
<td>0</td>
<td>0.1</td>
<td>17%</td>
</tr>
<tr>
<td>Hood</td>
<td>41,100</td>
<td>54,900</td>
<td>34%</td>
<td>279,519</td>
<td>0.1</td>
<td>0.2</td>
<td>34%</td>
</tr>
<tr>
<td>Hunt</td>
<td>76,596</td>
<td>91,600</td>
<td>20%</td>
<td>564,381</td>
<td>0.1</td>
<td>0.2</td>
<td>20%</td>
</tr>
<tr>
<td>Johnson</td>
<td>126,811</td>
<td>159,750</td>
<td>26%</td>
<td>469,982</td>
<td>0.3</td>
<td>0.3</td>
<td>26%</td>
</tr>
<tr>
<td>Kaufman</td>
<td>71,313</td>
<td>102,550</td>
<td>44%</td>
<td>516,425</td>
<td>0.1</td>
<td>0.2</td>
<td>44%</td>
</tr>
<tr>
<td>Navarro</td>
<td>45,124</td>
<td>49,500</td>
<td>10%</td>
<td>695,131</td>
<td>0.1</td>
<td>0.1</td>
<td>10%</td>
</tr>
<tr>
<td>Palo Pinto</td>
<td>27,026</td>
<td>29,600</td>
<td>10%</td>
<td>630,583</td>
<td>0</td>
<td>0</td>
<td>10%</td>
</tr>
<tr>
<td>Parker</td>
<td>88,495</td>
<td>120,300</td>
<td>36%</td>
<td>582,327</td>
<td>0.2</td>
<td>0.2</td>
<td>36%</td>
</tr>
<tr>
<td>Rockwall</td>
<td>43,600</td>
<td>76,000</td>
<td>76%</td>
<td>95,211</td>
<td>0.5</td>
<td>0.8</td>
<td>76%</td>
</tr>
<tr>
<td>Somervell</td>
<td>6,809</td>
<td>9,100</td>
<td>34%</td>
<td>122,605</td>
<td>0.1</td>
<td>0.1</td>
<td>34%</td>
</tr>
<tr>
<td>Tarrant</td>
<td>1,446,219</td>
<td>1,780,150</td>
<td>23%</td>
<td>577,162</td>
<td>2.5</td>
<td>3.1</td>
<td>23%</td>
</tr>
<tr>
<td>Wise</td>
<td>48,793</td>
<td>64,500</td>
<td>32%</td>
<td>590,386</td>
<td>0.1</td>
<td>0.1</td>
<td>32%</td>
</tr>
<tr>
<td>Region</td>
<td>5,309,277</td>
<td>6,538,850</td>
<td>Avg. Change = 31%</td>
<td>8,168,611</td>
<td>0.6</td>
<td>0.8</td>
<td>23%</td>
</tr>
</tbody>
</table>
Overall, the North Texas Metropolitan Statistical Area (MSA)’s population density was 1.01 persons per acre in 2005. By comparison, the New York and Los Angeles MSA’s had population densities over 4 persons per acre. When just the areas in urban development are considered population density of the developed parts of the 16-county North Texas region was 4.3 persons per acre in 2001.

Leading health issues for North Texans today include obesity, cardiovascular disease, and diabetes. Obesity, which stems primarily from poor nutrition and lack of physical activity, continues to increase. According to the Centers of Disease Control and Prevention the percentage of overweight and obese population increased from 61.8 percent in 2004 to 63.6 percent in 2008 in the Fort Worth-Arlington MMSA. The Dallas-Plano-Irving MMSA increased from 61.9 percent to 65.4 percent.

**Ethnicity and Diversity of the Region**

In 2008, approximately fifty-four percent of North Central Texans were white, twenty-seven percent were Hispanic, fourteen percent were black, and the remaining five percent were Asian or of another race (Exhibit 3.3). Dallas County is by far the largest and most racially and ethnically diverse county in the North Central Texas region. The dominant group in Dallas County is the Hispanic population, which is larger both in terms of absolute number and percentages than in any other North Central Texas county. The population pyramid displayed in Exhibit 3.4, is a breakdown of the North Texas region’s population by age and gender as of the year 2006. The median age for all people in the area is about 33.5 years. Sixty-one percent of the population is located within the workforce category (ages 20-64) and twenty-two percent of the population is school aged children (ages 5-19), with the remaining nine percent of the population located in the seniors category (ages 65-85+) and nine percent in the under five category (0-4).
**Household Characteristics**

A household includes all the people who occupy a housing unit as their usual place of residents. A family is a group of two or more people who reside together and who are related by birth, marriage, or adoption.

Ten North Central Texas counties have a population of at least 65,000. Exhibit 3.5 shows of these top ten counties, Kaufman has the highest average number of persons per household (3.36); Tarrant has the lowest (2.77). The average number of people in each household is 2.65. In most of the counties, forty to forty-five percent of the households have children.

Fifty-six percent of all housing units in Dallas County are occupied by the unit’s owner. This figure is twelve percentage points lower than any other county except for Tarrant, where there is a seven point difference. At nearly eighty-four percent, Rockwall has the highest percentage of owner-occupied housing units.

**Exhibit 3.4: North Texas Population by Age & Sex, 2006**

**Exhibit 3.5: Selected Household Characteristics, 2007**

<table>
<thead>
<tr>
<th>County</th>
<th>Number of Households</th>
<th>Average Household Size</th>
<th>Households with children</th>
<th>Households with seniors (60+)</th>
<th>Housing units which are owner occupied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collin</td>
<td>256,954</td>
<td>2.82</td>
<td>42.6%</td>
<td>20.0%</td>
<td>72.5%</td>
</tr>
<tr>
<td>Dallas</td>
<td>829,143</td>
<td>2.82</td>
<td>39.3%</td>
<td>24.2%</td>
<td>56.3%</td>
</tr>
<tr>
<td>Denton</td>
<td>201,202</td>
<td>2.98</td>
<td>41.9%</td>
<td>17.7%</td>
<td>67.8%</td>
</tr>
<tr>
<td>Ellis</td>
<td>45,924</td>
<td>3.08</td>
<td>45.2%</td>
<td>26.6%</td>
<td>75.6%</td>
</tr>
<tr>
<td>Hunt</td>
<td>28,925</td>
<td>2.79</td>
<td>34.5%</td>
<td>35.9%</td>
<td>69.3%</td>
</tr>
<tr>
<td>Johnson</td>
<td>47,546</td>
<td>3.10</td>
<td>40.5%</td>
<td>29.2%</td>
<td>74.7%</td>
</tr>
<tr>
<td>Kaufman</td>
<td>28,442</td>
<td>3.36</td>
<td>42.5%</td>
<td>27.5%</td>
<td>77.0%</td>
</tr>
<tr>
<td>Parker</td>
<td>35,895</td>
<td>2.95</td>
<td>42.7%</td>
<td>28.9%</td>
<td>81.5%</td>
</tr>
<tr>
<td>Rockwall</td>
<td>23,905</td>
<td>3.04</td>
<td>45.6%</td>
<td>23.6%</td>
<td>83.5%</td>
</tr>
<tr>
<td>Tarrant</td>
<td>610,185</td>
<td>2.77</td>
<td>40.3%</td>
<td>23.7%</td>
<td>63.4%</td>
</tr>
</tbody>
</table>

Seventy percent of Dallas-Fort Worth (DFW) area residents live in families (Exhibit 3.6). Twenty-five percent live alone and five percent live in households with at least one other, non-related person.

**Exhibit 3.6: Household and Market Characteristics, 2007**

<table>
<thead>
<tr>
<th>Category</th>
<th>Dallas - Fort Worth - Arlington</th>
<th>Percent</th>
<th>US</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Households with Children</td>
<td>786,656</td>
<td>37%</td>
<td>34,999,584</td>
<td>31%</td>
</tr>
<tr>
<td>Other Family Households</td>
<td>695,723</td>
<td>33%</td>
<td>40,119,676</td>
<td>36%</td>
</tr>
<tr>
<td>Single Person Households w/ Seniors</td>
<td>122,890</td>
<td>6%</td>
<td>10,264,914</td>
<td>9%</td>
</tr>
<tr>
<td>Other Single Person Households</td>
<td>411,543</td>
<td>19%</td>
<td>20,380,226</td>
<td>18%</td>
</tr>
<tr>
<td>Other Non-Family Households</td>
<td>111,836</td>
<td>5%</td>
<td>6,613,577</td>
<td>6%</td>
</tr>
<tr>
<td>Totals</td>
<td>2,128,648</td>
<td>100%</td>
<td>112,377,977</td>
<td>100%</td>
</tr>
</tbody>
</table>
Exhibit 3.6 shows that North Texas has a larger proportion of households with children than does the U.S. as a whole. Some notable characteristics of these families are:

* Of the region's families with children, sixty-five percent have school-aged children, between the ages of six and seventeen. About seventeen percent have very young children (aged three years and under). For these families, the quality of schools is often an important determinant in housing selection. These are the households that typify the 'traditional' composition of a household in the region and the nation.
* More than eighty percent of North Central Texas families live in detached, single-family structures. Of all families, three percent live in a mobile home, trailer, RV or some other place.
* Only twelve percent of North Central Texas families currently live in apartment buildings.
* Approximately twenty-five percent of families with seven or more members live in apartments or other multi-unit buildings.
* Even though households with children are a larger share of households in North Texas than in the U.S., they still account for only thirty-seven percent of the region's households.

Fully a quarter of all households in North Texas today include only one person. Some notable characteristics of these households are:

* More of these households live in apartments than in single-family homes. Approximately the same proportions of these households live in single family detached homes as in large apartment buildings (those with 5 or more units in the structure). 7% live in apartments in buildings with 2 to 4 units and 4% live in single family units, such as townhomes.
* Of the region's single householders, about 23 percent are young, between the ages of 15 and 34.
* Seniors between the ages of 65 and 74 account for 2.6% of these households. These households may fit the image of 'empty nesters' or retirees interested in living close to cultural activities and less interested in maintaining a large house and yard.
* Seniors older than 74 account for 3.2% of these households. These households may have special concerns about accessibility and proximity to medical care and other services. They may be particularly disadvantaged if their neighborhoods lack public transportation and they can no longer drive a car themselves.

Households with two or more non-related people comprise more than 5% of North Texas households. They may be interested in the space afforded by a single family detached home, but may also be interested in proximity to services and amenities; they are less likely to be concerned about school quality when selecting a home.

**Household Income**

In 2007, half of area households had an income of at least $54,730, which is higher than both the state median of $47,548, and the national median of $50,740. The estimated median income for the DFW area is just below the figure for the Austin MSA. However, the Austin metro area has less than one-third as many households as does the DFW metro. DFW’s median income is higher than the median incomes of the Houston and San Antonio MSAs.
Trends and Projections

Overall Growth Projections

The North Central Texas Council of Governments prepares long-range demographic forecasts for the ten counties surrounding and including the Dallas-Fort-Worth area. The forecasts are developed to provide a uniform base for regional planning and resource allocation. The 2030 projections produced by NCTCOG use the year 2000 as a base year and project population and employment in five-year increments to 2030. Separate from its 2030 forecasts, NCTCOG also developed projections for the 16-county region through 2050. These projections are solely for use in this Vision North Texas project, not for other modeling purposes. As Exhibit 3.7 shows, this sixteen county area is expected to have over 9.4 million total population and over 5.5 million non-construction jobs by the year 2030. In addition, by 2050, the region is expected to have almost 12 million people and over 7 million jobs. This represents an average annual population growth rate of 2.4% for the time frame from 2000. NCTCOG forecasts reflect only one set of growth assumptions. If circumstances change, real growth outcomes might be considerably different. The recent economic downturn is not expected to significantly change these long term projections.

Demographic Trends

Two factors will dominate North Central Texas demographic trends over the next twenty years. These are increasing diversity and the aging of the region’s population. The growth in non-white groups will be driven by migration and natural increase (births and deaths in the region). The region’s strong job market and international connectivity attract workers of all skill levels from all over the world. As long as the region’s economy remains moderately strong, internal and external migration to the area is expected to continue. While fertility rates for non-white groups have been declining, they are still considerably higher than rates for whites. Even with mortality rates factored in, the rates of growth for most non-white groups, particularly Hispanics, outpace that of whites.

Age group numbers are becoming more evenly distributed; equal numbers of children, parents, young professionals and seniors. In 2006 the population distribution was shaped very much like a pyramid hence the name ‘population pyramid’. By 2030 and 2050, the shape of the region’s population will bear less resemblance to a pyramid and more like a rectangle (Exhibit 3.8). This is primarily due to the aging of the large baby boom generation. The other factor affecting the shape of the distribution will be migration, since people moving to this region tend to be those in the labor force – young and middle-aged adults.

As for the diversity of the region, there will be a higher percentage of Hispanic and Asian residents in the future. By 2050 the Hispanic population is projected to be 4.1 million and the Asian population is projected to be 1.1 million, which combined is higher than the total White population and considerably higher than the Black population.

### Exhibit 3.7: North Texas Growth Projections

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2030</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population (millions)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Population</td>
<td>5.31</td>
<td>9.49</td>
<td>11.66</td>
</tr>
<tr>
<td>Total Employment</td>
<td>3.22</td>
<td>5.58</td>
<td>7.17</td>
</tr>
<tr>
<td>Total Households</td>
<td>1.94</td>
<td>3.48</td>
<td>4.38</td>
</tr>
</tbody>
</table>
Despite the impact of the aging baby boomers, natural increase and migration will keep the median age relatively close to the current figure. In 2030, the median age of the total population is projected to be about 34.7 years.

The share of some key age groups will be different than in the past, however. In 2006, people in the age group that provides most of the labor force (ages 20 through 64) comprised 61% of the region’s population. In 2030, this age group will comprise only 57% of the population. On the other hand, seniors aged 65 to 84 were only 7% of the population in 2006 and will be 13% of the population in 2030. In fact, the age groups with the highest percentage increase from 2006 to 2030 are those from 70 to 74 and 75 to 79.

### Housing Demand

Demand for housing reflects the character of the people who live in North Texas. Choices for housing -- and neighborhoods -- often vary with a person’s family composition and stage of life. Also, increasing costs (in time and money) of commuting and a growing interest in a ‘green’ lifestyle are making housing close to jobs more desirable. The mix of housing available in North Texas in the future should meet the needs of North Texas’ changing households.

By 2030, the region is expected to have over 3.5 million people living in households in the 16-county Vision North Texas region and 4.4 million by 2050. Household sizes, which have been generally declining for decades, are expected to continue to decline. However, the decline is not expected to be as dramatic as in the past. In fact, the average household size for the forecast area in 2030 is likely to be very close to the current household size as populations increase for those racial/ethnic groups that have historically had larger households.

These demographic changes will result in changes to the housing demand in the region. The sheer number of older and non-white residents will impact both the quantity and type of housing demanded in North Central Texas as well as the location of that housing.

Aging homeowners looking to downsize and trade in home maintenance for community living will certainly contribute to changes in housing demand. There is also likely to be an increase in demand for housing near transit. Also, expansion of the region’s transit systems will locate stations closer to more neighborhoods, businesses and other destinations, making this a more convenient choice for more people.

Funding for expansion of the region’s transit system must be secured so the needs of this growing market can be met and the neighbor-
hoods, businesses and major destinations in the region can be served with convenient transit.

The Center for Transit-Oriented Development has calculated the market for transit-oriented development, now and in the future, for the 42 metropolitan areas that have fixed rail transit systems that exist now or are planned to be in place in 2030. The Dallas region is expected to see a very large increase in the demand for housing within one-half mile of transit stations. This market segment was estimated at 46,429 households in 2007; the study projects that there will be 270,676 households in this transit-oriented housing market in 2030. To accommodate this anticipated demand, development around transit stations should include a variety of housing types and price levels.

Living alone has become an increasingly common choice. Single person households have increased over recent years and are forecasted to rise steadily. Today twenty-six percent of the households in the sixteen county area are single-person households. By 2013 single person households will make up an average of twenty-seven percent of all total households. Economics and shifting social norms are some of the reasons for the rise. The single person housing choice is a lot smaller and closer to urban areas than the typical 3-bedroom house that families want. Single person households are also a major component of homeowners. In 2005, the ‘Dallas Morning News’ reported that 47% of the mortgagees in the region were singles.

Conclusions

Throughout the five-year Vision North Texas process, the demographics of the region were closely considered. In order to plan for the future of North Texas, an understanding of the characteristics of the people who live here is necessary. Housing types and locational choice are changing as the population becomes more diverse. The needs and choices of smaller families and families without children are redefining how cities and communities are planned and which housing types are demanded in the marketplace.

There are opportunities as a result of the changing demographics for cities and first ring suburbs to attract baby boomers, households without children and young professionals. Thoughtful planning for the future based on these local demographic changes and preferences is one of the principles of Vision North Texas. The recommendations in this North Texas 2050 document should help this region respond to these changes and better meet the needs of our communities, businesses and current and future residents.

Throughout the five-year Vision North Texas process, the demographics, business climate, transportation network, sustainability and other factors affecting the Region were closely considered. In order to plan for the future of North Texas, an understanding of the people who live, work and travel to and through here is necessary. Housing types and locational choice are changing as the population becomes more diverse, the needs of businesses evolve, transportation networks and options change and the region, nation and world become more connected. The needs and choices of smaller families and families without children, changing populations are redefining how cities and communities are planned and which housing types are demanded in the marketplace.
A Vision for North Texas

The people of North Texas do not view ‘business as usual’ as a desirable future. They want a future that is better than that. This message was expressed throughout the Vision North Texas process. It was heard at stakeholder workshops throughout the region, at meetings ranging from regional realtor conferences and individual City Council sessions to Rotary Clubs and sustainability events, as well as in written and electronic comments. This chapter of North Texas 2050 describes a future that balances concerns about the economy, the environment and the people. It creates a future that is desired by a broad range of North Texas stakeholders.

This chapter presents this vision in three increasingly specific sections. First, a broad Vision Statement is presented. This vision reflects the most important themes for North Texans. Second, a set of twelve Guiding Principles add more detail to this vision. Third, a Preferred Future for North Texas recommends a pattern for physical development and a framework for investment that enable decision-makers throughout the region to apply these principles to their own properties, businesses and communities.

Vision Statement

North Texas is recognized worldwide as a region that sustains its economic success and vitality because it contains many distinctive and highly desirable communities, supports innovative people and businesses and nurtures its varied natural assets.

* It contains diverse neighborhoods, mixed use centers and communities that appeal to people of all income levels and at all stages of their lives.
* It is a preferred location for the employees and businesses that comprise the broad-based and innovative local economy.
* It offers residents and businesses access to resources and opportunities that lead to their long-term success.
* It protects, manages and enhances critical natural areas and uses energy and natural resources responsibly.
* It supports resilient and effective responses to change through collaboration and cooperation within the region.

Guiding Principles for North Texas 2050

Guiding Principles supplement the Vision Statement by providing a more precise description of the region's preferred future. These Guiding Principles update the Principles of Development Excellence adopted for North Texas in 2001. They are based on the input of stakeholders at Vision North Texas workshops and events. The principles listed below are all important; they are not listed in order of priority.
1. **Development Diversity** – Meet the needs of changing markets by providing a mix of development options and land use types in communities throughout the region.

2. **Efficient Growth** – Promote reinvestment and redevelopment in areas with existing infrastructure, ensure that new infrastructure supports orderly and sustainable growth, and provide coordinated regional systems of natural and built infrastructure.

3. **Pedestrian Design** – Create and connect pedestrian-(and bicyclist) oriented neighborhoods, centers and places throughout the region.

4. **Housing Choice** – Sustain and facilitate a range of housing opportunities and choices that meet the needs of residents of all economic levels and at all stages of life.

5. **Activity Centers** – Create mixed use developments that are centers of neighborhoods and community activities and serve as hubs of non-automobile transportation systems.

6. **Environmental Stewardship** – Protect, retain or enhance the region's important natural assets (including its air, water, land and forests) and integrate these natural features and systems into the character of the region's communities and the experiences of its residents.

7. **Quality Places** – Strengthen the identities of the region’s diverse communities through preservation of significant historic structures and natural assets, creation of new landmarks and gathering spaces, use of compatible architectural and landscape design, and support for the activities and institutions that make each community unique.

8. **Efficient Mobility Options** – Invest in transportation systems, facilities and operations that provide multi-modal choices for the efficient and sustainable movement of people, goods, and services.

9. **Resource Efficiency** – Design buildings, sites, communities and regional systems to use water, energy, and renewable resources responsibly, effectively and efficiently, and to retain non-renewable resources for the use of future generations.

10. **Educational Opportunity** – Provide opportunities for all North Texans to have access to the schools, people and technology they need for success in learning throughout their lives.

11. **Healthy Communities** – Identify and support functional, sustainable infrastructure and institutions that offer North Texans access to affordable, nutritious foods, opportunities for physical activity, and access to wellness and primary care services.

12. **Implementation** – Achieve the region's vision by adoption of compatible comprehensive plans and ordinances for cities and consistent investment plans for regional systems; involve citizens and stakeholders in all aspects of these planning processes.

**A Preferred Future for North Texas**

Achieving this North Texas 2050 Vision requires change from business as usual. More of the same will not create the region that stakeholders have said they want. The twelve Guiding Principles give decision-makers additional insight into the future envisioned through this process, but they provide a very broad description of this direction. The clearer picture of this preferred future is
found in the following sections, which describe both a preferred pattern for the region’s physical development and a preferred approach to the region’s investment framework. The policy recommendations found in these sections are directed at public, private, academic and civic decision-makers. Some recommendations are also provided for action by individuals, households, businesses and local neighborhood and business organizations.

The choices made by all these decision-makers will combine to determine the North Texas that will actually exist in the year 2050. These decision-makers must consider the economics of their choices; for long-term success and sustainability, they must also consider the implications of their choices for the region’s environment and communities. By communicating, collaborating and making decisions that support a shared vision, the many individual choices and investments made by these regional decision-makers will be most likely to produce a region that is similar to the one described by the stakeholders who have participated in Vision North Texas.

Futures that are ‘Better Than Business As Usual’

During 2009, Vision North Texas used stakeholder input to define four alternatives to the ‘business as usual’ future represented by the North Central Texas Council of Governments’ 2030 Forecast. Those four alternatives were:

Connected Centers. This scenario envisions a region where people have more choices about how they connect to the places where they live, work and play.

Return on Investment. This scenario envisions a region that maximizes the benefit received from the extensive investment taxpayers and property owners have made in the region’s existing infrastructure and development pattern.

Diverse, Distinct Communities. This scenario creates a region with different sorts of communities and centers, built on the traditional character of regional communities but designed to meet the needs of the region’s future markets.

Green Region. This scenario reflects the concept of ‘greenprinting’ – using technology and stakeholder dialogue to decide what natural assets are valuable or important in a particular region and then identifying those areas so they can be retained to provide greater benefit as the region grows.

A large team of researchers from diverse professional backgrounds evaluated these scenarios. Their results were presented at a regional event in September 2009. The feedback from stakeholders did not favor one alternative scenario over all others; instead, North Texans identified some desirable features in each of the four alternatives. The North Texas 2050 Preferred Future blends these best features into a hybrid concept that illustrates the future these residents and leaders want to see.

* Begin with the identification of important natural assets and an investment framework using alternative energy sources, LEED building standards and conversation to make more effective use of natural resources, as suggested in the Green Region scenario.
* Reflect areas with existing urban services (such as those identified in green on the Return on Investment scenario).
* Recognize the investments in the region’s many communities and the role they play in offering residents the ability to choose among communities with many types of character (such as those shown in the Diverse, Distinct Communities scenario).
* Identify centers of varying sizes throughout the region. These are both mixed use centers and employment centers. They include
the transit-oriented centers found in the Connected Centers scenario.

The preferred future in 2050 is described by a physical development pattern and an investment framework. Policy recommendations are presented that relate to particular parts of this development pattern and investment framework, as well as to the region as a whole. Together, the physical development pattern and the investment framework illustrate a future that is based on the North Texas 2050 Guiding Principles and achieves the Vision Statement presented above.

**Preferred Future – Physical Development Pattern**

**Policy Areas**

One part of the preferred future plan is a general description of the way development and redevelopment would occur in the region through the year 2050 if the region is to achieve its desired future. This physical development pattern illustrates the form and function of neighborhoods, business areas, communities and natural areas that together shape the place North Texans will experience in the future.

Five “Policy Areas” describe the desirable characteristics of various types of development in the North Texas region. Each policy area includes development that meets anticipated market demands in ways that should be sustainable over time. These policy areas and centers are explained in this section, with photos and diagrams that illustrate them. Exhibit 4.2 is a preliminary depiction of these policy areas in North Texas.

The policy area descriptions also include information that allows them to be related to the ‘Transect’. The Transect is an urban planning model created by the New Urbanism movement as a way to organize and identify different landscapes found within the environment, ranging from completely undeveloped natural areas to very dense downtown environments. The Transect is divided into six zones. These six zones vary by the level and intensity of their physical and social character. And form the basis for the use of urban design approaches recommended by New Urbanists. For example, the Transect includes a “Suburban Zone” (T3) which primarily includes single-family homes at the edge of a city.

In the sections that follow, the North Texas 2050 policy areas are related to the most comparable Transect Zones. Exhibit 4.1 displays the Transect diagram.
Natural Areas

The natural areas found in North Texas in 2050 are places where the natural and environmental features should be the focus. The purpose of this policy area is to preserve and protect open spaces, public parks, greenways, lake shores, significant views, stands of trees, and floodplains. The development that occurs near these natural features is planned with these important environmental features in mind. Retaining and managing the natural assets that are at the heart of these areas is the goal. This policy area would focus efforts to provide financial opportunities to owners and managers of natural areas that properly reflect the economic benefit these areas provide regionally and globally. Also, new growth and development that takes advantage of the amenities (parks, trails, and lakes) provided by the natural areas will be encouraged in this policy area through ‘best practices’ and incentives.

The natural areas shown on the Exhibit 4.2 generally reflect floodplains, major public parks & open spaces, shores along major lakes and potential connections between these natural assets. This policy area corresponds to the Transect Zone, T1, or “Natural Zone”.

Rural Areas

The region’s preferred future envisions these areas in 2050 as places where people can choose a rural or country lifestyle and where businesses based in agriculture can prosper. These areas have large lots, ranches, farms – all with low population and density. The infrastructure (like roads, water supply and sewage treatment) in rural areas is sized to serve small numbers of homes or businesses. Economic activity is largely related to agricultural and farming activities. Most areas are not part of incorporated communities.

To make the most of the investments and assets found in these areas, policies focus on support for continuing the economic life of existing businesses and uses. This preferred scenario offers North Texans of the future the opportunity for a rural lifestyle. The creation of new businesses (such as alternative energy production) that are based on the renewable resources that exist in these areas or that provide local goods and produce to meet the needs of people in the other parts of North Texas are highly encouraged.

The rural areas shown on the Exhibit 4.2 generally reflect the areas that are not in urban scale service areas, incorporated cities or natural areas. This policy area corresponds to the Transect Zone, T2 or “Rural Zone”.

Separate Community Areas

The region’s preferred future envisions these areas in 2050 as a collection of diverse communities, each with its own center and distinct character. They are generally separated from the central urban areas of the region by rural or natural areas. Their traditional core areas (often historic downtowns) offer unique features and support community pride. Although residents may need to commute to jobs in the central urban part of the region, they mainly identify with the character and the traditions of these separate community areas.

To make the most of the investments and community assets found in these areas, action focuses on economic growth that makes the traditional core areas sustainable over time and on steps to distinguish one community from another – through community design practices, emphasis on heritage, action to pursue new opportunities that differentiate individual communities, or retention of the rural and natural areas around and between them.

The separate community areas shown on the Exhibit 4.2 generally reflect the incorporated communities beyond the outer tier. This policy area corresponds to the Transect Zone, T3 or “Suburban Zone”.
Exhibit 4.2: Preferred Future Diagram
(Illustration of a Preferred Physical Development Pattern for the Year 2050)
Outer Tier Areas

The region’s preferred future imagines these areas in 2050 as a major part of the region’s more urban area. The outer tier areas frame the inner tier and provide different options for living and working, though still in an urban setting. There is still opportunity for new greenfield development in the outer tier areas. While there may be places with older development, most of the neighborhoods and business areas were developed after 1980. Rehabilitation and reinvestment are generally not concerns in the outer tier today, though they will become more important over time.

To make the most of the community assets found in these areas, the policies for the outer tier areas focus on steps to ensure that greenfield development follows the principles of the North Texas 2050 document, actions to maintain and support existing neighborhoods, and emphasis on the establishment of distinct identities when new neighborhoods and communities are created.

The outer tier areas illustrated on the Exhibit 4.2 generally reflect the areas within regional waste-water service areas and/or locations where lakes and rivers create a logical edge to urban-scale development. This policy area corresponds to the Transect Zone, T3 and T4 or “Suburban” and “General Urban”.

Inner Tier Areas

The region’s preferred future envisions these areas in 2050 as the core of the North Texas region. These are areas that today are largely developed and have little land left for new (greenfield) development. Their neighborhoods and business areas were mostly built before 1980. Many of the major regional institutions (museums, universities, etc.) are located here, as are many places with regional historic significance. They are facing challenges of infrastructure repair. While some neighborhoods are desirable and thriving, others are suffering from neglect. The inner tier areas include both major employment locations and major shopping destinations, as well as a wide variety of neighborhoods.

To make the most of the investments and community assets found in these areas, action focuses on steps to keep these neighborhoods prospering, reuse of older buildings, and selection of locations for infill development.

The inner tier areas shown on the Exhibit 4.2 generally reflect areas where 15% or less of the land area is still vacant. This policy area corresponds to the Transect Zone, T5 and T6 or “Urban Center” and “Urban Core”.

Centers

North Texas’ preferred future includes many types of centers. These centers are special places that draw residents of North Texas to them, for many reasons, including shopping and entertainment. These centers are intended to be places that people can easily park their cars once, then shop, eat, mail a letter – all without having to ever move their cars. They are active and inviting places, due to their thoughtful design, which tends to be centered on the pedestrian. The streets are designed not just for cars, but for pedestrians and bicycles. Their appeal is wide so that many people visit them each day for work or shopping, and they are desirable places to call “home” for many future North Texans. The vision of the preferred future for North Texas includes many centers with opportunities for connections between centers.

The mixed use centers shown on the Exhibit 4.2 are those that have been identified to date. After release of this North Texas 2050 document, the VNT partners encourage municipalities, land owners
and interested parties to share information on other centers that meet these definitions. These will be added to later versions of the diagram. The most significant centers are shown in the Exhibit 4.2. Other local-serving centers will be shown online but not in this exhibit. Additionally, it is recognized that some of the centers shown as ‘Community Centers’ now may play a larger role in the region over time. Further discussion may change their designation from ‘Community’ to ‘Metropolitan’. The different centers are described in detail below and are based on information collected from VNT research, NCTCOG records and UTA data.

Employment Centers

The North Texas region has a large, diverse business community and is home to many corporate headquarters. Some regional locations offer higher employment concentrations than other areas. These Employment Centers are important to the North Texas region because they are the location of significant numbers of jobs and of the major corporate citizens of the region. Employment centers may include single-use office parks or campuses, large manufacturing or distribution centers and similar areas with a concentration of jobs. While downtowns and mixed-use, high density areas also have significant numbers of jobs, they include a mix of residential and non-residential uses. For North Texas 2050, these areas are included among the Mixed Use Centers described below. By analyzing these concentrations of employment, the region may be better able to anticipate the amount of job growth expected, the types of jobs that will be in highest demand, and which industry sector is expected to contribute the largest share of jobs. The region can also use this information to better provide the services and infrastructure needed to support these businesses and the people who work in these locations, including transit for people who work in these areas. Employment centers will be generalized from previous Vision North Texas research and preliminary center locations will be presented in the Regional Choices Diagram.

Mixed Use Centers

The mixed use centers are: Regional, Metropolitan, Community and Neighborhood. The four centers reflect areas with a variety of uses (including both employment and housing), at least a moderate intensity of development and, for some, their roles as distinct or traditional centers of communities. The mixed use centers differ in terms of size, scale, and specific function. For the most part, Regional and Metropolitan centers are similar in that they provide a strong employment base for the North Texas region, have a mix of land uses, and are highly developed. In turn, Community and Neighborhood centers are also similar. They are mixed use but do not provide as many job opportunities as the larger Mixed Use Centers. Also these two centers may have a single family residential component compared to the Regional and Metropolitan centers, where most residential uses are at higher densities. All of the centers are envisioned to be mixed use and pedestrian friendly, with more intense development than their surroundings. Characteristics common to all four are the presence of transportation connections and rapid transit lines. Transit-Oriented Development (TOD) is expected around transit stations in all four types of Mixed Use Centers.

Specific criteria have been established to distinguish the four centers and to identify where they are located in the region. The table in Exhibit 4.3 summarizes key criteria defining Mixed Use Centers. A more detailed description of each mixed use center follows.
Regional Centers

Regional Centers are the densest of the four mixed use centers, with a wide variety of uses. A Regional Center has a balance of office, retail, entertainment, light industrial and multi-family residential uses. Regional Centers are envisioned as pedestrian-oriented, urban areas, in a central location. All modes of transportation serve the Regional Centers. The North Texas region has two Regional Centers, Downtown Dallas and Downtown Fort Worth.

Exhibit 4.3: Mixed Use Center Criteria

<table>
<thead>
<tr>
<th>Typologies/Districts</th>
<th>Mix of Uses</th>
<th>Employment Intensity</th>
<th>Residential Density</th>
<th>Scale</th>
<th>Height</th>
<th>Transit System Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Center</td>
<td>Office, retail, MF residential, light industrial and entertainment; includes mixed-use; Emphasis on employment uses.</td>
<td>100 - 200 jobs/acre</td>
<td>50 - 100 units/acre</td>
<td>600 - 1,000 acres</td>
<td>5 to 50 stories</td>
<td>All modes of transportation; regional public transit, parking restrictions, and served by multiple major highways.</td>
</tr>
<tr>
<td>Metropolitan Center</td>
<td>Office, retail, MF residential and entertainment; includes mixed-use.</td>
<td>50 - 80 jobs/acre</td>
<td>15 - 50 units/acre</td>
<td>100 - 500 acres</td>
<td>2 to 10 stories</td>
<td>Served by one or more corridor/ regional lines and local services. Freeways with multiple access points. In some cases served by public transit.</td>
</tr>
<tr>
<td>Community Center</td>
<td>SF and MF residential and retail; includes mixed-use.</td>
<td>30 - 50 jobs/acre</td>
<td>5 - 10 units/acre</td>
<td>20 - 100 acres</td>
<td>1 to 5 stories</td>
<td>Served by at least several local transit and located on an arterial network. Served by a transit route providing connections to at least one Metropolitan Center. Commuter parking is located in this center. In some cases served by public transit.</td>
</tr>
<tr>
<td>Neighborhood Center</td>
<td>Mix of uses at a neighborhood scale.</td>
<td>20 - 30 jobs/acre</td>
<td>10 - 15 units/acre</td>
<td>20 - 100 acres</td>
<td>1 to 5 stories</td>
<td>Served by local roads and local transit to nearest larger center. Commuter parking in located in this center. In some cases served by public transit.</td>
</tr>
</tbody>
</table>

Note: Transit-Oriented Development (TOD) projects may occur within any of these centers.
Metropolitan Centers

Metropolitan Centers offer the same variety of uses, just on a somewhat smaller scale. Their development is less intense than Regional Centers. They tend to be populated urban areas that are primarily mixed-use, accommodating business and multi-family residential land uses. They meet a wide variety of business and employment needs and are large enough to serve several surrounding cities. Metropolitan Centers also include the larger historic downtowns of cities in the North Texas area. Metropolitan centers are served by one or more corridor/regional transit lines and local bus services. Twenty Metropolitan Centers have been identified so far and examples of these centers are below:

* Addison (includes Addison Circle and Vitruvian Park)
* Downtown Denton
* Las Colinas
* La Villita
* Legacy Town Center

Community Centers

Community Centers have a mix of uses and are distinguished by their smaller size and scale. Community Centers offer development that provides retail and residential within the same building or in close, walkable proximity to one another. They attract visitors and people from across the region because of their uniqueness, historic nature and design character. They provide access to shops, restaurants and community-oriented services. Community Centers are traditionally located on a major arterial network and served by a transit route providing direct transit to at least one Metropolitan Center. Thirty-nine Community Centers have been identified so far and a few examples of these centers are as follows:

* Berry/University
* Bishop Arts District
* Brick Row
* Downtown Arlington
* Downtown Garland
* Park Lane Place

Neighborhood Centers

This is the smallest of the four Mixed Use center types. Neighborhood Centers serve the shopping, service or entertainment needs of one or more existing or planned residential neighborhoods. They contain a diverse mix of land uses, at a neighborhood scale, including those schools, shopping, personal services and restaurants. These centers may offer quality amenities, like parks, that attract people from the adjacent neighborhoods. Good pedestrian, bicycle and bus transportation links are found in Neighborhood Centers; some may also include transit stations and adjacent Transit-Oriented Development. Neighborhood Centers are served by local roads and local transit to the nearest larger mixed use center. Over 25 Neighborhood Centers have already been identified to date. Examples of Neighborhood Centers include:

* Rockwall Commons in Rockwall
* Desoto Town Center
* Downtown Mansfield
* Bluebonnet Circle
directed - cities or counties, developers, property owners, universities or non-profit organizations. The leaders of Vision North Texas propose these actions because they change the 'business as usual' trend and shift the region toward its preferred future.

Preferred Future Accommodates Growth

North Texas is one of the fastest-growing regions in the nation, and this growth is expected to continue. By 2030, this sixteen county area is expected to have 9.5 million residents and by 2050, there could be 11.7 million people living here. Can this preferred future handle all this growth? Exhibit 4.4 shows that this preferred future illustrated in Exhibit 4.2 can accommodate the growth expected through the year 2050.

Exhibit 4.4 assumes that future development in Separate Communities and the Outer Tier areas would occur at approximately the average intensity of the Green Region alternative scenario. Natural and rural areas are expected to be less densely developed because of the character of those areas. The Inner Tier Areas – those that are largely developed but that would see intensification as revitalization occurs and mixed use centers are created – would have an intensity of development that reflects these more compact patterns and the concepts in the VNT alternative scenarios. For this estimate, the average intensity in the Inner Tier Areas is assumed to be 30% higher than the average for the developed parts of North Texas in 2001.

Under these assumptions, the development pattern illustrated in Exhibit 4.2 could accommodate over 12.5 million people. The anticipated 2050 population of the region would require about 93% of this capacity.

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**Exhibit 4.4: Population Capacity of Preferred Future Diagram**

<table>
<thead>
<tr>
<th>Area</th>
<th>Size (Acres)</th>
<th>Density (persons per acre)</th>
<th>Population Capacity</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Developed Area</td>
<td>1,273,216</td>
<td>4.3</td>
<td>5,429,366</td>
<td>Amount of developed area in the region in 2001, based on NCTCOG land use analysis.</td>
</tr>
<tr>
<td>Natural</td>
<td>1,653,000</td>
<td>1.29</td>
<td>2,132,370</td>
<td>Density is 30% of that of N TX urban area in 2001, balancing areas for no development with those for resort/sustainable urbanism uses.</td>
</tr>
<tr>
<td>Rural</td>
<td>4,657,000</td>
<td>0.27</td>
<td>1,234,105</td>
<td>Density assumes 2.65 persons per household, average 1 household per 10 acres.</td>
</tr>
<tr>
<td>Separate Communities</td>
<td>366,000</td>
<td>4.70</td>
<td>5,358,000</td>
<td>Density is that from 'Green Region' scenario.</td>
</tr>
<tr>
<td>Outer Tier</td>
<td>1,140,000</td>
<td>4.70</td>
<td>5,358,000</td>
<td>Density is that from 'Green Region' scenario.</td>
</tr>
<tr>
<td>Inner Tier</td>
<td>373,000</td>
<td>5.60</td>
<td>2,088,800</td>
<td>Density is 30% higher than in existing developed area.</td>
</tr>
<tr>
<td>Total Capacity</td>
<td>8,189,000</td>
<td>12,533,475</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. The density factors used here are the number of persons divided by the number of acres in all urban land uses (not just residential).
2. These densities (for Separate Communities, Outer Tier & Inner Tier) include the more intensely developed centers averaged with the less intense surrounding developments.
Preferred Future – Investment Framework

The physical pattern of development in North Texas is both shaped by and served by the area’s investments and infrastructure. For North Texas 2050, this framework includes eight areas of investment. Each of these is introduced below, with an explanation of the role they play in the region’s effort to achieve its Preferred Future. Policy recommendations follow this introduction. Many of the policy recommendations apply throughout the North Texas region; these recommendations are presented first. They are followed by recommendations that relate to a particular part of the region’s preferred physical development plan - the policy areas and centers - described above.

Investment Areas
Regional Ecosystem

As the population of our region continues its rapid growth, ‘business as usual’ means new development that expands into the undeveloped rural or natural areas of our region. This expansion poses a threat to natural assets - such as watersheds, open space, wetlands, forests and water resources - that are important to our quality of life. If this pattern of growth continues, the damage to the environment will be wide-ranging, from drought, floods, poor air quality and the disappearance of the diverse habitat and wildlife in our region. To prevent these impacts, it is important to understand the value and importance of the region’s undeveloped rural and natural areas and to consider these when development and investment decisions are made. A Regional Ecosystem Framework is a central recommendation of North Texas 2050. It will provide communities with necessary information on the benefits of the natural assets that may be affected by future development. It should enable property owners, service providers and local governments to make more informed decisions. The result of this approach to development is an investment framework that protects the vitality of the environment and the

Clearly, this preferred future does not constrain or limit the region’s ability to house the people who are expected to live here in the next 40 years. It provides enough capacity to meet needs and provide opportunities for development choice and market competition.

National research shows that the demand for large-lot residential development through 2030 can be met by the supply of lots that existed in 2007. By providing more opportunities for other types of residential development, Exhibit 4.2 should better meet the needs of the expected market. It is also less likely to contribute to an oversupply of large lots compared to market demand.

This development pattern is adequate for growth over the next 40 years, but it anticipates a significant amount of development in areas that are not currently urban. As a result, it is reasonable to consider the most efficient ways to stage or phase growth into these new urban areas. If the region is to develop with the sustainable, compact and walkable communities people want, it will be important to ensure that the development of these areas occurs at urban densities (retaining most of the land in rural uses in the short term), rather than developing large parts of this area at lower, more sprawling densities that will require costly extensions of services and will repeat the ‘business as usual’ pattern of the past. Property owners, developers, regional leaders and service providers will need to create new approaches to infrastructure timing and phasing if investors are to receive a reasonable return on their investments as growth occurs over the next 40 years and if the region is to achieve the stakeholders’ preferred future for North Texas.

Preferred Future – Investment Framework

The physical pattern of development in North Texas is both shaped by and served by the area’s investments and infrastructure. For North Texas 2050, this framework includes eight areas of investment. Each of these is introduced below, with an explanation of the role they play in the region’s effort to achieve its Preferred Future. Policy recommendations follow this introduction. Many of the policy recommendations apply throughout the North Texas region; these recommendations are presented first. They are followed by recommendations that relate to a particular part of the region’s preferred physical development plan - the policy areas and centers - described above.

Each recommendation indicates the decision-makers(s) to whom it is applicable. The areas discussed below are the focus of important investments by public, private and other decision-makers in North Texas. Each of these areas plays an important role in the region’s future, so action in each area is important to achieve this preferred future. These investment areas also interact with one another. Coordination and integration of investments and decisions across these areas is also essential – these choices must be aligned to create synergy and support a sustainable region.
health of the region’s residents because the ecosystems are themselves an essential part of the region’s investments and infrastructure.

**Community Character and Form**

When an individual or a family chooses a place to live, they seldom focus on statistics such as regional growth rates. Instead, they are concerned with the quality of life and the opportunities available in a particular neighborhood, city or metropolitan area. From 2000 to 2008, almost 52% of the region’s growth was from people moving into the area, and over half of the people moving to the region came from another country. In the future, North Texas is expected to continue adding residents and jobs, but the region’s success at attracting and retaining people depends on maintaining or enhancing its appeal to newcomers and to long-term residents.

*North Texas 2050* envisions a future with many neighborhoods and communities, all thriving but each different. In this way, the region as a whole will offer choices that are attractive to all the diverse households that are expected to live here. The *North Texas 2050* physical development pattern describes the general character and location of development in the region. The policies recommended here provide guidance for successful and sustainable action in communities throughout the region.

**Economy**

The *North Texas 2050* Vision is based on a sustainable, thriving economy. This economic focus for the region:

* Is based on the strengths of many distinctive and highly desirable communities, each of which may have a different economic focus or emphasis.
* Relies on the talents of innovative people for its continuing success.
* Nurtures the region’s natural assets, and using them as a basis for the future economy, helps to make this a sustainable economy.
* Meets the needs of many different market segments, so there is not a ‘one size fits all’ pattern of development throughout the region.
* Investments – public and private – are made where they are most efficient and effective in their use of resources.
* The region’s economy is globally competitive and attractive as a place to visit, work and live.
* Public-private partnerships are used at the regional and local level, and resources like model ordinances and incentives facilitate economic vitality throughout the region.

Policy recommendations support increased collaboration at the regional level, as well as support for action that retains the distinctive economic role of individual communities and employment centers within the region.

**Housing**

With millions of additional residents expected in North Texas in the coming decades, there is little doubt that housing will be important. More important than providing basic shelter, though, the housing choices we make as a region today will impact almost every aspect of our future. Having a mix of housing types and styles – from single family homes on large lots to smaller units close to transit to housing for seniors who want to ‘age in place’ – will better match the region’s expected market demands. Every city should strive for a variety of housing types and sizes. Successfully aligning these housing choices with job locations will decrease commutes, increase productivity and reduce air pollution. Infill of today’s employment-rich areas with housing choices will create mixed use areas that also achieve these objectives. Support for strong, diverse neighborhoods will
restore many communities to economic vibrancy while retaining the individual character that makes them special.

North Texas 2050 recognizes that housing is an essential part of a community and a region. One of the twelve Guiding Principles (found on page #) addresses Housing Choice and other guiding principles support the fundamental role of housing and neighborhoods in the region's long term success. These policy recommendations support investment in housing so housing options are available to meet the needs of future North Texans. They result from the work of the North Texas Housing Coalition (NTHC), which has led Vision North Texas efforts related to housing.

Mobility
Every day, North Texans travel around the region in the course of their daily lives. They commute from home to work or school. They make trips to retail stores, business offices, libraries, public buildings or hospitals. They may visit a church, synagogue or mosque. They take part in events at arenas and stadiums or go to parks and open spaces to enjoy sports, recreation and fitness activities.

Since travel is so important to North Texans’ daily lives, the ability to move from place to place – mobility – is an essential part of a livable, sustainable and successful region. Many efforts to provide mobility over the past 50 years have focused on building more and larger roads for automobile travel and this mode of travel will continue to be an important part of the region’s mobility in the future. But the region, and the nation as a whole, should not continue putting all its mobility ‘eggs’ in this single ‘basket’. Instead, the region’s preferred future is based on a Guiding Principle that stresses a variety of efficient mobility options. These options are intended to meet North Texans’ travel needs, gain the greatest benefit from investments in mobility and make the region more sustainable. They build on – and further – recent transportation investment priorities.

Climate Resilience
International research has led some (but not all) scientists to conclude that increasing levels of carbon (and other greenhouse gases) in the atmosphere contribute to global climate change. Publications by the Urban Land Institute and others show that the transportation and building sectors are key contributors to greenhouse gas emission and must be a major focus of strategies to reduce a region’s ‘carbon footprint’ and to make communities more resilient in their responses to changes in the climate. Local action on climate change is already underway in North Texas cities. As of early 2008, over 60% of the people in the North Texas region lived in cities whose mayors had signed the U.S. Conference of Mayors Climate Protection Agreement, committing them to strive to meet or beat the Kyoto Protocol targets in their own communities; urge state and federal governments to meet or beat these targets; and urge Congress to pass bipartisan greenhouse gas emission legislation.

In December 2009, the Administrator of the U.S. Environmental Protection Agency (EPA) found that greenhouse gas concentrations threaten the public health and welfare of current and future generations (endangerment) and that emissions of these gases from new motor vehicles and motor vehicle engines contribute to the greenhouse gas pollution (cause or contribute). These findings were based on technical analysis and public comment, and will be the basis for regulations under the Clean Air Act.

The North Texas 2050 preferred future should help reduce the carbon footprint that would have resulted from ‘business as usual’ because it is comparable to the four alternative scenarios studied in 2009, which
North Texas 2050 has been created so the people who will live in North Texas for decades to come will enjoy better opportunities, choices and quality of life than those that seem likely under current trends. This vision of a better future includes support for innovative people. It stresses that all North Texans should have access to the resources and opportunities that lead to long-term success. This concept is emphasized in the Education Guiding Principle: provide opportunities for all North Texans to have access to the schools, people and technology they need for success in learning throughout their lives. Investment in educational institutions, at all levels, is essential to provide this access.

Currently in North Texas, the state and the nation, we have a tremendous achievement gap that we must close if we are to continue to be an educated, democratic society and if we are to successfully compete at the state, national, and international levels. These policy recommendations provide a framework for action to narrow this achievement gap.

Health
Health is more than the absence of illness or the quality of medical care. Health includes issues of aging, air and water quality, economics and environmental concerns. People are healthiest when they live in nurturing environments, have living wage jobs, access to good educational opportunities, are safe and are involved in the life of their community – in other words, when they live in healthy communities. North Texas 2050 goes beyond the traditional focus on ‘sick care’ and advocates the creation of a living environment that promotes health.

The policy recommendations include results of the work of the Health Research Team (HRT) convened for Vision North Texas – a group of local, regional and state representatives of organizations involved in all aspects of health.

Region-wide Policy Recommendations

These recommendations apply throughout the entire North Texas region and relate to issues that are best addressed by action region-wide.

Regional Ecosystem

1. The North Central Texas Council of Governments (NCTCOG) should lead an effort to involve cities, towns and counties in development and utilization of a watershed-based Regional Ecosystem Framework for the development of future infrastructure plans including Mobility Plans, water/wastewater plans, open space or trail system plans, the use of natural assets as ‘green infrastructure’ and similar ecosystem-related initiatives.

2. Cities, towns and counties should:
   a. Adopt integrated Storm Water Management (iSWM) or similar strategies to address water quality needs and impending state and federal regulations.
   b. Adopt Floodplain Management ordinances that address needs beyond basic administration of the National Flood Insurance Program and include management of dynamic waters resources that changes over time.
   c. Participate in basin or watershed–wide efforts for “Greenprinting” to assist in the implementation of comprehensive and strategic plans outlining the preservation, maintenance and/or acquisition of important natural...
resource areas.

d. Participate in regional water planning efforts so these plans support this preferred future and incorporate the NT2050 Guiding Principles.

3. Cities and towns should:
   a. Incorporate Environmentally Sensitive Area Plan components in their Comprehensive Plans.
   b. Investigate the use of watershed-based planning and zoning strategies.
   c. Adopt tree management/preservation ordinances and sound forest management practices to help manage a healthy population of trees, thus providing the clean air, clean water and energy benefits of trees into the future.

4. NCTCOG, with other partners, should develop an urban forest vision and management plan for the region.

5. Local governments should pursue a Section 404 permit for Regional and General Conditions to maximize the protection of important water resources while ensuring flexibility to address low, medium and high value water resources.

6. NCTCOG should set regional policy to assist the state in identifying entities that are formally designated to provide wastewater collection/treatment services for the region.

7. NCTCOG, with other partners, should explore the use of Transfers/Purchases of Development Rights (TDR) systems at the regional level and for communities within the region. TDR involves the exchange of zoning or other land use control privileges from areas with low population needs, such as farmland, to areas of high population needs, such as downtowns, urban cores and mixed use centers. These Transfers/Purchases allow for the preservation of open spaces and historic landmarks in less developed areas, while giving urban areas a chance to expand and experience continued growth.

8. NCTCOG and regional communities should investigate the use of impact fee strategies to compensate for the impacts on drainage, groundwater recharge and other natural infrastructure functions due to greenfield development.

9. NCTCOG should facilitate discussions of:
   a. The potential expansion of County authority for land use planning and subdivision regulation in rapidly growing non-incorporated parts of the region, including planning that supports continuing agricultural uses.
   b. Improving the annexation abilities of local governments, especially within rapidly growing counties.

10. Regional entities in existing water resource partnerships with the U.S. Army Corps of Engineers should continue and expand these initiatives.

11. Local governments, property owners and developers should include measures for clean air quality in revitalization, redevelopment and new development projects, and should encourage compact development patterns to improve air quality.

Community Character and Form

12. Regional stakeholders should help North Texas achieve its preferred future by making their own policy and investment decisions in ways that are compatible with the recommendations.
of North Texas 2050, including its Vision Statement, Guiding Principles and Preferred Future (physical development pattern and investment framework).

a. Cities, towns and counties should adopt NT2050-compatible comprehensive plans, zoning and other policies and regulations.

b. Infrastructure providers should adopt NT2050-compatible capital improvement programs and should fund, construct, operate and maintain facilities accordingly.

c. Property owners and developers should design and construct NT2050-compatible projects, whether these are new developments, renovations of existing buildings or revitalizations of previously-developed areas.

d. Neighborhood, development, civic and other non-profit organizations should provide public support for NT2050-compatible projects and initiatives, and should educate residents about the benefits of this preferred future.

13. The North Texas 2050 Action Team should establish a set of indicators to measure how actual development compares to the North Texas 2050 Preferred Future, should determine existing benchmark levels and should report on these indicators at least every five years, and should advocate additional actions that may be needed to achieve the North Texas 2050 Preferred Future.

a. North Texas should encourage the use of new technologies to achieve these objectives, as these are developed over time.

14. A North Texas Sustainability Center should be established, through the collaboration of regional stakeholders, which will provide information, training and other assistance to individuals and organizations in North Texas who seek to achieve the North Texas 2050 Preferred Future through sustainable development and operation of their own buildings and properties.

15. The North Texas 2050 Action Team should work with the regional representatives of federal agencies to implement federal sustainability programs in North Texas and to align investments by all federal agencies to support the region’s sustainability and the recommendations of North Texas 2050.

Economy

16. The North Texas Commission, in collaboration with the region’s economic development departments and corporations and the region’s chambers of commerce, should:

a. Develop, fund, adopt and implement a coordinated branding program to market the region nationally and globally.

b. Play a leadership role in the educational efforts that implement North Texas 2050.

c. Recognize the diverse roles the region's distinctive communities play in the region's economic future, and consider agreements to reduce the negative regional impacts of competition for businesses among North Texas communities.

17. The North Texas Commission should initiate an updated assessment of existing and potential new targeted industries for North Texas that identifies target industries for the current and future economic vitality of the region as a whole and for specific North Texas 2050 policy areas. This assessment should
be conducted in collaboration with the region's economic development departments and corporations and the region's chambers of commerce.

**Housing**

18. The North Texas Housing Coalition (NTHC) should create a *North Texas 2050* Housing Vision to provide more focused direction for implementing *North Texas 2050* in the area of housing. The NTHC should produce a package of recommendations for consideration by North Texas counties, cities and towns, housing organizations, neighborhood associations, developers, real estate councils, builders associations, and property owners. These recommendations should provide practical steps (including education programs, criteria for funding by HUD and TDHCA, incentives and/or changes in land use and development practices) that improve the region's ability to offer housing that meets the demands of the future market in terms of housing availability, sustainability and value.

19. The NTHC and the North Central Texas Council of Governments should work together to coordinate *North Texas 2050* implementation for housing with action on other issues including environment, transportation and overall economic impact. Implementation should provide affordable, energy-efficient and location-efficient housing choices for people of all demographics (ages, incomes, races, and ethnicities) and should make the combined cost of housing and transportation more affordable to North Texans.

20. The NTHC should establish a set of targets for five critical housing indicators. These targets should establish specific goals to be achieved by key years (2020, 2030 and 2050) for the North Texas region as a whole. The NTHC should monitor progress toward these goals as part of *North Texas 2050* implementation. Indicators and potential targets are:

   a. Housing Development Intensity to meet an overall regional target measured in persons per acre of developed land.

   b. Housing Variety – in terms of the range of housing styles, densities and diversity available to regional consumers.

   c. Housing-Transportation Affordability for people at all income levels. Affordability indicators include the share of a household's income spent on housing (no more than 30%) and the share spent on housing and transportation combined (no more than 48%).

   d. Alignment of Supply and Demand – how well the region's supply of housing meets the demands of this region's mix of households.

   e. Housing Neighborhood Condition – the physical condition of the region's homes and neighborhoods.

21. Housing developers and service providers (private, public and non-profit) should collaborate with local governments, civic and environmental organizations and property owners to implement housing initiatives in conjunction with initiatives that achieve other aspects of *North Texas 2050*.

**Mobility**

22. The Regional Transportation Council should develop and adopt a “Mobility Plan” for the region that supports this preferred future and incorporates the *North Texas 2050* Guiding Principles.
23. The entities that plan, fund, build, operate and maintain mobility systems should:

a. Provide systems that enable North Texans to choose the way they wish to travel. North Texans should have multiple modes of travel available to them so they can decide whether to walk, ride a bike, take a bus, trolley or rail vehicle, carpool, drive a car or truck, or use some other mode of travel.

b. Support statewide and local alternative funding mechanisms, including appropriate reliance on public-private partnerships in reinvestment areas.

c. Consider the life-cycle costs of mobility projects (construction, operation, maintenance and rehabilitation) when making investment decisions.

d. Emphasize effectiveness in moving people when they make their investment decisions. The cost-effectiveness of investments should consider the cost per person-trip, rather than the costs per vehicle-trip.

e. Use criteria for the allocation of transportation funding that consider social, environmental and economic impacts (related to employment and real property investment) as well as transportation criteria.

f. Provide systems that support and enhance the character of the areas around them, whether that context is a dense urban center, a natural open space or a residential neighborhood.

g. Provide systems that help people choose modes that are efficient and environmentally-friendly. These choices should improve the region’s air quality, reduce the region’s carbon footprint and minimize the impacts of transportation on the region’s natural assets.

h. Provide ‘complete streets’ in public rights-of-way serving neighborhood, community or sub regional travel needs.

i. Invest to encourage travel by bike or on foot (instead of by car) in areas with a high percentage of short trips.

24. North Texans should choose modes of travel that are healthy and environmentally friendly and promote efficient use of limited transportation resources.

25. North Texans should support initiatives to provide sufficient funding to build, operate and maintain this mobility system. Funding sources could include fees, tolls, taxes or other revenue sources.

Climate Resilience

26. The North Texas 2050 Action Team should convene working sessions to prepare a set of North Texas indicators to measure the region’s environmental (or carbon) footprint and monitor its change over time.

27. The North Texas 2050 Action Team should convene stakeholders to develop strategies for evolving regional strength in energy production to include alternative energy markets.

28. The North Texas 2050 Action Team should convene stakeholders to develop a detailed package of recommendations for action to reduce North Texas’ environmental carbon footprint and to enable this region to adapt effectively to the impacts of climate change.
29. Universities in North Texas should pursue initiatives to study changes in the North Texas climate and strategies to reduce the region’s environmental carbon footprint.

30. The North Texas Sustainability Forum should provide recommended action packages to cities, towns and counties so they can mitigate and adapt to impacts of climate change.

31. Civic, environmental and other non-profit organizations in the region should design, fund and implement educational programs to inform North Texas residents and businesses about choices that will reduce the region's environmental carbon footprint.

**Education**

32. A broad coalition of North Texas education leaders should be formed, with the involvement of the private and public sectors and of institutions that provide education and training from pre-kindergarten to formal education (K-12 and college/university) and through lifelong learning. The region’s five existing P-K16 Councils should form the core of this coalition.

33. The North Texas Education Coalition (NTEC) should create a North Texas 2050 Education Vision to provide more focused direction for implementing North Texas 2050 in the area of education. This Education Vision should include standards for college and workforce readiness for North Texas students.

34. The leaders of North Texas cities, towns, civic organizations and businesses should use these standards as targets for regional accomplishment and as indicators of North Texas 2050 progress.

35. Educational institutions at all levels (P-K Lifetime) should recruit, retain, and reward teachers, faculty and administrators. The NTEC should lead efforts to develop an effective approach to these issues and should help implement this approach.

36. The NTEC should lead region-wide collaborations across all educational levels in order to be successful in the above endeavors.

37. The NTEC should advocate programs and initiatives, such as creation of a Tier One-status university, that makes North Texas a global leader in teaching innovation, research and development and training people who become leaders in innovative business and civic enterprises.

38. The North Texas 2050 Action Team should implement programs that educate all North Texans about sustainability and actions needed to achieve the North Texas 2050 Vision.

**Health**

39. The Health Research Team (HRT) should produce a package of ‘healthy community’ recommendations for consideration by North Texas counties, cities and towns. These recommendations should provide practical steps (including education programs, employee wellness initiatives, incentives and/or changes in land use and development practices) that improve residents’ access to affordable, nutritious foods, physical activity and wellness services.

40. North Texas counties, cities and towns should create a regional network of healthy community action plans to implement these recommendations.

41. Farmers markets, local growers, community garden sponsors,
42. The Health Research Team, NCTCOG and other relevant organizations should collaborate with local businesses to encourage access to primary health care via convenient transportation to facilities and/or using other means for communication between physicians and patients.

43. The North Central Texas Council of Governments should use its regional planning initiatives to support creation of a regional trail network and other regional systems that support healthy lifestyles.

44. Hospital and health care systems should contribute support to incentives and investments that provide North Texans with access to healthy, affordable foods and physical activity.

45. Civic, environmental and neighborhood organizations should create and support community gardens throughout the region.

46. The Health Research Team and the North Texas Education Coalition should develop strategies that increase youth involvement in growing, preparing and marketing nutritious food.

47. Independent school districts and communities should implement the Active Transport to and from school initiative to promote walking or biking to and from school.

Coordination of Investments

48. The North Texas 2050 Action Team should work with regional partners to align public, private, academic and civic investments to achieve the recommendations of North Texas 2050.

49. The North Texas 2050 Action Team should conduct outreach and engage regional partners to develop a coordinated ‘playbook’ for action in the next 3 to 5 years to implement North Texas 2050.

Natural Areas Policy Recommendations

These recommendations are appropriate for the parts of North Texas described as ‘Natural Areas’ in the region’s preferred physical development pattern.

1. The North Central Texas Council of Governments should develop and maintain mapped information that identifies important natural assets and areas within the region, and should contribute this knowledge to regional efforts that provide an economic basis to retain or enhance these assets and areas.

2. Property owners, developers, local governments and the Texas Parks and Wildlife Department should retain, preserve and enhance identified regional natural assets through the use of their resources for planning, design, construction and operation. Development in ‘Natural Areas’ should be designed so it takes advantage of the unique features of nearby natural assets.

The North Texas 2050 should develop model ordinances, guidelines and incentives for development in or adjacent to natural assets that provide financial support for retaining and enhancing these assets and areas.

3. Local governments along the Trinity River should continue initiatives that enhance and restore the river that support
compatible development along its banks, and that result in infrastructure retrofits that improve water quality in the Trinity.

4. Universities, property owners, environmental organizations and other interested stakeholders should conduct research and establish systems to enable North Texas natural assets (such as forests and grasslands) to be included in carbon sequestration programs or other environmental initiatives.

5. Environmental and educational organizations (including Audubon Texas, River Legacy Foundation and others) should provide opportunities for all North Texans to learn about the region’s ecosystems and natural assets, participate in research about their role in the region, contribute to their preservation and include them in the experiences of daily life.

6. Property owners, developers, local governments and land conservancies should collaborate to acquire land and improve trails and facilities in Natural Areas that are part of the region’s healthy lifestyle systems.

7. Communities that include Natural Areas should work with county and state agencies to set up a system to identify effective and appropriate areas and technology for on-site wastewater-treatment in less urban areas of the region.

Rural Areas Policy Recommendations

These recommendations are appropriate for the parts of North Texas described as ‘Rural Areas’ in the region’s preferred physical development pattern.

1. Property owners, developers and local governments should use their resources for planning, design, construction and operation to continue rural activities and land uses in ‘Rural Areas’ of North Texas.

2. The North Texas 2050 Action Team should convene regional stakeholders to develop an implementation strategy to support the continuation of rural activities in these ‘Rural Areas’.

3. Local governments, in partnership with the Texas Department of Agriculture’s Rural Economic Development Funding Program, should develop and implement a strategy that supports North Texas businesses based in agriculture, renewable energy production and the management of natural assets.

4. Agricultural organizations, landowners and land conservancies should collaborate on economic initiatives that link the economic sustainability of the region’s agriculture with healthy communities, eco-tourism and development for outdoor recreation.

5. Cities, in coordination with NCTCOG and local conservation and preservation organizations, should categorize and manage streams in this area of the region in a manner that maintains their natural values and functions while the community has the space and density characteristics to do so. New and revised plats should not include platting to center line of creeks.

6. NCTCOG, in collaboration with cities, should work with county and state agencies to coordinate the development of regional guidelines to identify effective and appropriate areas and technology for on-site wastewater-treatment in less urban areas of the region.

7. Agricultural organizations, landowners and land conservancies should support the restoration, protection and connection between natural and urban areas by preserving the region’s working green landscapes of croplands and forests.

8. School districts in rural areas should collaborate with other
North Texas educational providers to make education and learning opportunities accessible to residents of these areas.

9. School districts, economic development organizations and civic organizations should provide education, training and research to support a workforce capable of filling ‘clean/green jobs’ related to local agriculture, alternative energy production and other renewable resource businesses.

10. Local governments and land conservancies should collaborate with property owners and developers in the development and maintenance of walking, hiking, jogging and biking trails in the region’s natural areas.

**Separate Community Areas**

These recommendations are appropriate for the parts of North Texas described as ‘Separate Community Areas’ in the region’s preferred physical development pattern.

1. Property owners, developers and local governments should use their resources for planning, design, construction and operation to enhance the distinctive character of Separate Community Areas in North Texas.

2. The cities, towns, historic and downtown associations in Separate Community Areas should convene a working group to identify technical assistance, funding or other resources needed so they can achieve their role in the *North Texas 2050* Preferred Future. Participants should determine how (or whether) this working group should continue as an on-going partnership or coalition.

3. NCTCOG, design organizations and the development community should provide needed assistance and resources to the cities, towns, historic and downtown associations in Separate Community Areas.

4. Cities and towns in Separate Community Areas should use their decisions and investments to achieve their role in the *North Texas 2050* Preferred Future:
   a. Planning, zoning, subdivision, infrastructure investment, incentives and other tools should be used to maintain or create compact, walkable mixed use areas in central locations within these communities.
   b. A compact style of development should be promoted that encourage a better balance of development over time.
   c. Parking requirements should be reassessed for actual economics and impacts to the physical environment. Strategies using a maximum limit for parking should replace the traditional minimum limits.
   d. Downtown enhancement or revitalization initiatives and historic preservation efforts should be encouraged to retain and build upon communities’ unique character and heritage and to make more sustainable use of these existing assets.

5. Cities, towns, counties and NCTCOG should identify areas for rural or natural uses that will buffer Separate Community Areas from one another and from other urban development, and should consider such ‘community buffers’ in preparing regional plans for natural assets and systems.

6. Property owners, cities and towns in Separate Community Areas should use natural features as a ‘green infrastructure’ to meet community needs:
   a. Where possible, streams that have been converted into
artificial drainage ways should be returned to their more natural condition while still meeting the community’s drainage needs.

b. Land use planning should include vegetated stream and lake buffers to maximize the benefit of these natural functions to the surrounding areas. When possible, residential and commercial subdivisions should not be platted with lots extending to the center line of creek. This will result in more buffered stream area to accommodate the dynamic nature of watershed and stream conditions.

c. Vegetated stream and lake buffer areas should be identified and managed to maximize their multipurpose benefits like water quality, flood management, trails, recreation, etc.

7. NCTCOG should coordinate the development of regional guidelines to identify effective and appropriate areas and technology for onsite wastewater treatment in less urban areas of the region.

8. The North Texas Commission, the region’s economic development departments and corporations, and the region’s chambers of commerce should collaborate to create a suggested package of economic development incentives/tools that support appropriate investment in Separate Community Areas of the region, and should work together to seek legislative approval to make these incentives/tools available to property owners, businesses and local governments in these parts of the North Texas region.

9. Private, public and non-profit housing developers and service providers should provide a mix of housing options in these separate communities that contributes to the regional targets for development intensity, variety, affordability, alignment of supply and demand, and housing/neighborhood condition.

10. Property owners, developers, local governments and civic/neighborhood organizations should implement programs that provide resources to keep existing neighborhoods (and the housing in them) vital and desirable.

11. School districts (ISD and college level) in Separate Community Areas should collaborate with other North Texas educational providers to make education and learning opportunities accessible to residents of these areas.

12. School districts (ISD and college level) in Separate Community Areas should identify educational specializations for which they have particular expertise or resources and should establish focused programs in these areas that attract students or form the basis for distance-based learning programs provided from these areas.

13. Cities, towns and local business organizations should incorporate healthy community recommendations in initiatives that support vital downtowns and town centers.

14. The cities, towns, historic and downtown associations in Separate Community Areas should collaborate with regional organizations to identify, fund and implement programs to market the unique characteristics of these communities as part of initiatives to market this region to the nation and the world.

Outer Tier Areas Policy Recommendations

These recommendations are appropriate for the parts of North Texas described as ‘Outer Tier Areas’ in the region’s preferred physical development pattern.
1. Cities and towns that contain Outer Tier Areas should use their decisions and investments to achieve their role in the North Texas 2050 Preferred Future:
   a. Planning, zoning, subdivision, infrastructure investment, incentives and other tools should be used to designate compact, walkable mixed use areas in central locations within these communities. These mixed use areas may reflect existing downtowns or centers, or may indicate appropriate places to create new centers.
   b. A compact pattern of growth, emphasizing infill and brownfield developments, should be promoted that encourages a better balance of development over time.
   c. Buildings, sites and neighborhoods should incorporate sustainable design standards (such as those reflected in the LEED certification system) and people-oriented design concepts (such as the principles of New Urbanism).
   d. Design and land use standards and guidelines should facilitate the design of buildings and sites that reduce energy requirements and use of local systems to generate energy from alternative sources and distribute it for use locally.
   e. Single family neighborhoods and other places dominated by a single land use should be designed to maximize non-automobile trips and to encourage walking, cycling and other healthy activities. Planning, zoning, subdivision, infrastructure investment, incentives and other tools should be used to support these objectives.
   f. Parking requirements should be reassessed for actual economics and impacts to the physical environment. Strategies using a maximum limit for parking should replace the traditional minimum limits.
2. Cities, towns, counties and property owners should work together to prepare general plans for natural areas, urban forests, development and infrastructure on a watershed-by-watershed basis in Outer Tier Areas of the region.
3. Property owners, cities and towns in Outer Tier Areas should use natural features as a ‘green infrastructure’ to meet community needs:
   a. Where possible, streams that have been converted into artificial drainage ways should be returned to their more natural condition while still meeting the community’s drainage needs.
   b. Land use planning should include vegetated stream and lake buffers to maximize the benefit of these natural functions to the surrounding areas. When possible, residential and commercial subdivisions should not be platted with lots extending to the center line of creek. This will result in more buffered stream area to accommodate the dynamic nature of watershed and stream conditions.
   c. Vegetated stream and lake buffer areas should be identified and managed to maximize their multipurpose benefits like water quality, flood management, recreation, etc.
   d. The urban forest should be conserved and managed to provide benefits, such as energy reduction, to the homes and businesses in the Outer Tier Areas.
4. The North Texas Commission, the region’s economic development departments and corporations, and the region’s
chambers of commerce should collaborate to create a suggested package of economic development incentives/tools that support appropriate investment in Outer Tier Areas of the region, and should work together to seek legislative approval to make these incentives/tools available to property owners, businesses and local governments in these parts of the North Texas region.

5. Cities, property owners and developers should encourage redevelopment of Outer Tier Area brownfield sites through the use of economic development incentives and other tools.

6. Cities, towns, counties, improvement districts and other entities that build or operate public facilities and systems should maximize the return on investment to taxpayers, customers and bond-holders over the life of the facilities.
   a. Existing capital infrastructure should be maintained and managed to serve the people and businesses anticipated in existing services areas over time.
   b. Renovation or rehabilitation of infrastructure should be designed to support the North Texas 2050 Preferred Future.
   c. Investments in facility expansions or extensions should be compared to or exceed existing systems in cost-effectiveness per household (or acres served).
   d. Facility expansions and extensions should be staged or phased based on the most effective return on public and private investment, and considering social, environmental and economic impacts.
   e. Cost- and resource-effectiveness should be based on life cycle costs – the costs to build, operate and maintain infrastructure through the year 2050 – to serve people and businesses reasonably expected to use the infrastructure through 2050.

7. Private, public and non-profit housing developers and service providers should provide a mix of housing options in Outer Tier Areas that contributes to the regional targets for development intensity, variety, affordability, alignment of supply and demand, and housing/neighborhood condition.

8. Cities and towns should review and update land use plans, housing initiatives, incentives and regulations to encourage new housing that is affordable, energy-efficient, location-efficient and that makes more choices available to meet the market demands of the region's future households.

9. School districts (ISD and college level) should use the principles of 'green design' when constructing new buildings and campuses. Districts are encouraged to use design comparable to LEED Silver certification (or higher) in all new construction.

10. School districts in Outer Tier Areas should share resources (of expertise, facilities and funding) with those in Inner Tier Areas to make the most efficient and effective use of community investments in education.

11. Cities and towns should review and update land use plans and regulations to provide convenient access to community gardens, farmers markets, full scale grocery stores and places for physical activity for residents in neighborhoods throughout North Texas.

Inner Tier Areas Policy Recommendations

These recommendations are appropriate for the parts of North Texas
described as ‘Inner Tier Areas’ in the region’s preferred physical
development pattern.

1. Cities and towns that contain Inner Tier Areas should use their
decisions and investments to achieve their role in the North Texas 2050 Preferred Future:
   a. Planning, zoning, subdivision, infrastructure investment,
incentives and other tools should be used to designate
      compact, walkable mixed use areas in central locations
      within these communities. These mixed use areas may reflect
      existing downtowns or centers, or may indicate appropriate
      places to create new centers.
   b. A compact pattern of growth, emphasizing infill and
      brownfield developments, should be promoted that
      encourages a better balance of development over time.
   c. Downtown enhancement or revitalization initiatives and
      historic preservation efforts should be encouraged to retain
      the unique character and heritage of neighborhoods and
      communities and to make more sustainable use of these
      existing assets.
   d. Design and land use standards and guidelines should
      facilitate the use of local systems to generate energy from
      alternative sources and distribute it for use locally.
   e. Single family neighborhoods and other places dominated
      by a single land use should be designed to maximize non-
      automobile trips and to encourage walking and other healthy
      activities. Planning, zoning, subdivision, infrastructure
      investment, incentives and other tools should be used to
      support these objectives.

   f. Parking requirements should be reassessed for actual
      economics and impacts to the physical environment.
      Strategies using a maximum limit for parking should replace
      the traditional minimum limits.

2. Cities, towns, counties and property owners should work together
   to prepare general plans for natural areas, development and
   infrastructure on a watershed-by-watershed basis in Inner Tier
   Areas of the region.

3. Property owners, cities and towns in Inner Tier Areas should use
   natural features as a ‘green infrastructure’ to meet community
   needs:
   a. Where possible, streams that have been converted into
      artificial drainage ways should be returned to their more
      natural condition while still meeting the community’s
      drainage needs.
   b. Land use planning should include vegetated stream and lake
      buffers to maximize the benefit of these natural functions
      to the surrounding areas. When possible, residential and
      commercial subdivisions should not be platted with lots
      extending to the center line of creek. This will result in more
      buffered stream area to accommodate the dynamic nature of
      watershed and stream conditions.
   c. Vegetated stream and lake buffer areas should be identified
      and managed to maximize their multipurpose benefits like
      water quality, flood management, recreation, etc.

4. The urban forest should be conserved and managed to provide
   benefits, such as energy reduction, to the homes and businesses
   in the Inner Tier Areas. Inner Tier Areas should receive regional
priority in urban forest investment in order to reduce the ‘urban heat island effect’ in the most developed parts of the region and the impacts of this effect on the people of these communities.

5. The North Texas Commission, the region’s economic development departments and corporations, and the region’s chambers of commerce should collaborate to create a suggested package of economic development incentives/tools that support appropriate investment in Inner Tier Areas of the region, and should work together to seek legislative approval to make these incentives/tools available to property owners, businesses and local governments in these parts of the North Texas region.

6. Cities, property owners and developers should use planning, zoning, economic development incentives and other tools to encourage infill, redevelopment and revitalization in Inner Tier Areas locations including:
   a. Brownfields
   b. Commercial corridors, centers or properties that have exceeded their useful lives or abilities to meet market demands
   c. Underutilized non-residential properties

7. Cities, towns, counties, improvement districts and other entities that build or operate public facilities and systems should maximize the return on investment to taxpayers, customers and bond-holders over the life of the facilities.
   a. Existing capital infrastructure should be maintained and managed to serve the people and businesses anticipated in existing services areas through the year 2050.
   b. Renovation or rehabilitation of infrastructure should be designed to support the North Texas 2050 Preferred Future.
   c. Cost- and resource-effectiveness should be based on life cycle costs – the costs to build, operate and maintain infrastructure through the year 2050 – to serve people and businesses reasonably expected to use the infrastructure through 2050.

8. Private, public and non-profit housing developers and service providers should provide a mix of housing options in Inner Tier Areas that contributes to the regional targets for development intensity, variety, affordability, alignment of supply and demand, and housing/neighborhood condition.

9. Cities and towns should review and update land use plans, housing initiatives, incentives and regulations to encourage new housing that is affordable, energy-efficient, location-efficient and that makes more choices available to meet the market demands of the region’s future households.

10. Property owners, developers, local governments and civic/neighborhood organizations should implement initiatives that provide resources to keep existing neighborhoods (and the housing in them) vital and desirable.

11. Cities and towns should review and update land use plans, housing programs, incentives and regulations to encourage the inclusion of housing in initiatives that redevelop or reuse existing structures and vacant/underutilized properties. These efforts should place special emphasis on housing that is appropriate for people who live in or near these properties (for example, residents
of single family neighborhoods seeking to downsize, neighborhood seniors needing assistance or families with limited ability to pay increased housing and transportation costs).

12. The North Texas education coalition should recommend changes to institutional and financial structures that will improve Inner Tier Area public schools so families with children can reasonably choose to live in these areas.

13. School districts (ISD and college level) should evaluate ways to reuse existing buildings in Inner Tier Areas to bring educational opportunities to the people who already live and work in these areas.

14. School districts (ISD and college level) should use the principles of 'green design' when constructing or renovating buildings and campuses. Districts are encouraged to use design comparable to LEED Silver certification (or higher) in all new construction.

15. Cities and towns should review and update land use plans and regulations to enable vacant and underutilized properties to be used as community gardens and farmers markets.

16. Property owners, developers and local governments should ensure that revitalization, reuse and redevelopment projects include places where future residents can be physically active. Other wellness facilities and programs should be encouraged as well.

17. Cities and towns should review and update land use plans and regulations to provide access to community gardens, farmers markets, full scale grocery stores and places for physical activity. In general, these resources should be available to most residents within approximately 15 minutes of travel.

Employment Centers Policy
Recommendations

These recommendations are appropriate for Employment Centers in North Texas.

1. Cities and towns that contain Employment Centers should use their decisions and investments to achieve the centers' role in the North Texas 2050 Preferred Future:

   a. Planning, zoning, subdivision, infrastructure investment, incentives and other tools should be used to continue these area's role in the regional economy.

   b. Buildings, sites and centers should incorporate sustainable design standards (such as those reflected in the LEED certification system) and people-oriented design concepts (such as the principles of New Urbanism).

2. Cities, towns, counties, NCTCOG and regional organizations should develop and implement a strategy to support the continuing vitality of existing major regional employment centers.

3. The North Texas Commission, the region's economic development departments and corporations, and the region's chambers of commerce should collaborate to create a suggested package of incentives/tools that support investment in the region's Employment Centers.
4. Private, public and non-profit housing providers should invest in location-efficient, appropriate types of housing for people who work in these employment areas. Location-efficient housing enables this workforce to reduce their household costs for housing and transportation while also reducing vehicle trips and related environmental impacts on the region.

5. Major employers based in the region's employment centers should provide education and job training at locations in these centers.

6. Property owners and major employers based in the region's employment centers should offer multiple mobility choices for trips to, from and within the employment centers. Existing and new employment centers should be served by transit as well as roadways. Property owners and major employers should collaborate with NCTCOG and local transit authorities and municipalities to design, prioritize, and seek incentives and funding for these mobility choices.

7. Property owners and major employers based in the region's employment centers should locate and manage parking so lots and garages can be shared by multiple uses and so people will be encouraged to park once when visiting multiple destinations.

8. Major employers based in the region's employment centers should emphasize healthy lifestyles and a greater well being for people who work or do business in these employment areas by providing wellness programs, access to walking/jogging trails and affordable nutritious foods.

Mixed Use Centers Policy Recommendations

These recommendations are appropriate for Mixed Use Centers in North Texas.

1. Cities and towns that contain Mixed Use Centers should use their decisions and investments to achieve their role in the North Texas 2050 Preferred Future:
   a. Planning, zoning, subdivision, infrastructure investment, incentives and other tools should be used to support compact, walkable mixed use areas. Minimum development intensities should be established for these centers.
   b. Buildings, sites and centers should incorporate sustainable design standards (such as those reflected in the LEED certification system) and people-oriented design concepts (such as the principles of New Urbanism).

2. The North Texas Implementation Team, in collaboration with local governments and property owners, should develop model ordinances, guidelines and incentives for regional economic support to encourage development of regional and urban/metropolitan mixed use centers.

3. The region's economic development departments and corporations should develop model ordinances, guidelines and incentives for regional economic support of community and neighborhood/TOD mixed use centers.

4. Private and public entities developing projects in mixed use centers should include housing for a mix of income levels in their projects.
5. Community colleges, universities and other educational providers should offer courses, online education and other learning opportunities at places in mixed use centers where these programs can be included in students’ daily lives and where the institutions can be integral parts of their communities.

6. Educational institutions in mixed use centers should partner with other organizations to provide convenient nearby child care and similar resources for the people who work or study at these institutions.

7. Property owners in mixed use centers should offer multiple mobility choices for trips to and within the mixed use centers.

8. Property owners in mixed use centers should locate and manage parking so lots and garages can be shared by multiple uses and so people will be encouraged to park once when visiting multiple destinations.

9. Developers and communities should ensure that new and existing mixed use centers retain or enhance the unique character and heritage of the centers and their surrounding communities.

10. Public, private and non-profit organizations should provide the transit facilities and services to take people the ‘last mile’ from a destination to the transit stations found at the core of some Mixed Use Centers.

11. The public health departments and Health Research Team should collaborate with urban planners and developers to design North Texas mixed use centers that include trails and green space around businesses, schools and residential areas, as well as grocery stores with affordable healthy foods for all residents and access to wellness and primary care centers.
Action Package

A vision for the future does not affect change unless there are actions taken to make it a reality. The previous chapter, “A Vision for North Texas”, describes the preferred future expressed by the region’s stakeholders and recommends policies that support this vision. If this vision is to be realized, the many regional stakeholders who make decisions about investments and programs must act in ways that help achieve the vision. This chapter, the “Action Package”, is a toolbox which provides the set of tools stakeholders can use to make the Vision a reality.

Contents of the Action Package

The Action Package consists of resources for implementation such as model ordinances, best practices, incentives, research results, maps and diagrams, as well as many other items. These tools are organized into six groups:

Incentives

Incentives make it easier for a decision-maker to choose to take the action that supports the vision. They may improve the economics of this choice or make it more likely that approvals and resources will be provided. A tax abatement is one example; another is fast-tracking of a project’s development review and approval process.

Best Practices

These examples of projects or programs give decision-makers a better understanding of how to do something they haven’t done before. They allow each person or organization to learn from the experiences of others and reduce the need to ‘reinvent the wheel’. A set of development ‘best practice’ case studies were developed for Vision North Texas by the Urban Land Institute and the University of Texas at Arlington. They are available online and provide an illustration of this sort of action tool.

Model Ordinances & Templates

Models and templates allow a decision-maker to implement a new action tool quickly because they provide a standard approach the decision-maker can simply customize. The iSWM manual for cities’ action on storm water management is an example of this action tool group.

Technical Assistance

It is often difficult to change operations because an organization may not have the expertise or resources to put a new program in place. Technical assistance from another organization may make action more feasible. The Urban Land Institute’s Technical Advisory Panel
(TAP) services illustrate this action tool group.

**Benchmarks & Indicators**

It’s hard to tell if progress is being made if there is no way to measure or monitor activities over time. Benchmarks measure conditions at the beginning of a program and provide a basis for comparison. Relative benchmarks provide a set of comparable cities or organizations and measure progress against the conditions in those places. Indicators are the factors that are measured in setting benchmarks. For example, vehicle miles traveled (VMT) and VMT per person are indicators used to measure the amount of auto travel in a community. The benchmark could be VMT in the region in the year 2000. Relative benchmarks could be the VMT/person for the largest 50 U.S. metropolitan regions.

**New Institutions/Entities**

Changes to the region’s institutional structure might be necessary to produce results that are better than ‘business as usual’. One example is a research collaborative that would engage the region’s colleges and universities in coordinated research on issues important to achieve the **North Texas 2050** Vision. Tools that require legislation, such as new economic development tools, are also included in this group.

**Regional Coordination & Collaboration**

The success of Vision North Texas is one illustration of the benefits to be realized through regional coordination. Continuing such collaboration -- among jurisdictions, across areas of expertise, and among diverse stakeholders -- will help implement these recommendations.

**Communication**

Education has been among the primary activities of Vision North Texas. Communication will be necessary to share this vision with all North Texans and to educate decision-makers about the choices that lead to a future that is ‘better than business as usual’.

**Potential Action Tools**

In the course of Vision North Texas work, over 200 potential action tools have been identified. The most important action tools are discussed in detail below. All these potential action tools are listed in Appendix 2, which also provides more information about the potential action tools. It indicates where each tool is most relevant (in the five policy areas, Employment and Mixed Use Centers) and how each tool relates to the components of the investment framework.

This toolbox contains local and regional examples of tools, such as ordinances and best practices, which can be tailored to meet the unique needs of individual communities. Topics addressed by these tools include: preservation of natural resources, meeting housing needs, conserving water resources, enhancing urban forests in our communities, promoting transit-oriented and mixed-use development, creating pedestrian-friendly neighborhoods, establishing public-private partnerships, and many more helpful tools to assist communities through the various stages of development.

**Priority Action Tools**

Action is essential to move away from a ‘business as usual’ future. But it is not realistic to expect that a list of over 200 action items can all be carried out soon or simultaneously. From that large list of potential action tools, Vision North Texas leaders have recommended a smaller number that are most important to begin immediately. These top priority action tools are listed below. They propose a ‘top 20’ -- those that should receive the greatest amount of attention and action in 2010 -- and the ‘next 10’ --additions to the priority list that focus on
individual issues or innovative research. Together, the ‘top 20’ and the ‘next 10’ create an agenda for action in North Texas in 2010.

**Top 20**

**Structure for North Texas 2050 Implementation**

1. **Create an action team for North Texas 2050.** The Vision North Texas Management Committee should determine the most effective structure for a group that will continue these collaborations, monitor progress and lead efforts where appropriate. This team might be a continuing private-public-academic partnership, a new non-profit organization or some other structure.

2. **Secure funding for North Texas 2050 implementation.** Some recommendations of North Texas 2050 can be carried out by aligning existing programs and resources to achieve this vision. But without an adequate commitment of resources, organizations will find it challenging to revamp programs, educate leadership and staff, change communications approaches and take the other steps to realign efforts. New initiatives and projects will require additional resources. An important focus during 2010 must be on securing resource commitments to begin implementing North Texas 2050 in the next few years.

3. **Engage state and federal agencies.** Federal agencies are embarking on unprecedented efforts to support metropolitan regions and integrate programs across agencies. This effort must be carried out at the regional level, in North Texas. It should be focused on alignment of state and federal programs and resources to help achieve this preferred future for North Texas.

4. **Define targets to use in measuring progress.** When Vision North Texas examined alternative futures in 2009, an extensive set of indicators was used to compare four alternatives to the ‘business as usual’ future. These indicators should be reviewed and updated so they can be used to measure actual progress in implementing North Texas 2050. Benchmarks should be defined for each indicator, to establish a baseline for existing North Texas conditions. Targets for 2015, 2020, 2030 and 2050 should be developed through discussion among North Texas leaders and review of the goals set by comparable regions.

**Alignment of Existing Regional Plans and Policies**

5. **Achieve the North Texas 2050 preferred future through this year’s update of the regional Mobility Plan.** In 2010, the Regional Transportation Council is updating the plan that guides the region’s investments in a wide range of transportation facilities and programs. This update of the Mobility Plan should help achieve the North Texas 2050 preferred future and should implement the recommendations of North Texas 2050.

6. **Achieve the North Texas 2050 preferred future through this year’s updates of Regional Water Plans.** In 2010, the long-range plans for water are also being updated. The plans for Regions C, D and G should help achieve the North Texas 2050 preferred future and should implement the recommendations of North Texas 2050.

7. **Achieve the North Texas 2050 preferred future through this year’s update of the region’s Trinity Common Vision.** This year will be the 20th anniversary of the initial region-wide plan for the Trinity River and the natural areas that surround it. An update of the Trinity Common Vision should align this regional plan with North Texas 2050, achieving this preferred future and implementing recommendations regarding natural assets, open spaces, trails, urban forests, community gardens and other topics.

**Creation or Expansion of Specific Regional Coalitions**

8. **Create a North Texas Municipal Sustainability Forum.** This forum should provide a way for local cities and counties to share information and reach agreement on shared strategies to achieve the North Texas 2050 preferred future and make the region’s...
communities more sustainable.

9. **Expand the region’s economic development collaborations.** The North Texas Commission should convene economic interests in the region and expand existing collaborations, so this region can compete successfully with regions worldwide.

10. **Form a Healthy Communities Municipal Coalition.** This coalition would bring together local municipalities, public health organizations and health/wellness interests. It would develop the programs to carry out *North Texas 2050*’s health recommendations at both the regional and the community level. The Health Research Team should take the lead on convening this coalition.

11. **Include housing initiatives with regional sustainability efforts.** The North Texas Housing Coalition has a track record of regional collaboration on housing issues. It has been an active partner in creating *North Texas 2050*. It should take the lead on implementing recommendations related to housing, and should play an active role in the partnership that integrates action to achieve the preferred future.

12. **Bring together existing education councils to create a forum for regional education visioning and action.** Education is an essential part of many *North Texas 2050* recommendations. There are councils for educators in individual counties, however there is not a regional forum for this dialogue. These councils should join together to create a vision for education at all ages that will support the *North Texas 2050* preferred future. The University of Texas at Arlington should convene this forum.

**Refinement of the Preferred Future**

13. **Refine the preferred physical development pattern through stakeholder discussions.** This document describes a set of policy areas and centers that together create a depiction of a preferred way to accommodate North Texas’ expected growth. The *North Texas 2050* Action Team should meet with stakeholders to discuss and refine the recommendations found in this document. Meetings should be held with cities, counties, development community organizations and similar groups.

14. **Complete the Regional Ecosystem Framework.** This framework creates the refined vision of natural areas and their role in the region’s future. It is an important next step in refining the region’s preferred future.

15. **Begin region-wide action for the urban forest.** The urban forest brings together elements of the natural environment with the form of urban development and the use of energy and other resources. Individual cities are working on research and planning for their parts of the urban forest, but a regional vision is needed to bring these together at the scale of the entire region. A vision for the urban forest should be created and, depending on available funding, an inventory should be started.

16. **Establish phasing priorities for public investments in outer tier areas.** Many areas identified as the outer tier are undeveloped today. As the analysis in this report shows, only 25% of this area will be developed by the year 2050 if growth is accommodated at intensities similar to those that exist in the region today. In order to make the most effective use of limited public infrastructure funds, these investments should be coordinated to create sustainable communities in the outer tier. The *North Texas 2050* Action Team should lead an effort to develop the phasing approaches that will maximize the region’s return on these public infrastructure investments.
17. **Secure funding for needed mobility investments.** New resources are essential to fund the full range of mobility investments needed for North Texas – the sidewalks and trails, bike routes, transit modes and roadways that combine to offer the mobility choices that residents and businesses want. Regional leaders must work with state and federal representatives to create appropriate funding sources and secure needed resources. Without this funding, the preferred physical development pattern may not be feasible.

18. **Focus on integrated action in Mixed Use Centers.** These areas are important parts of the future region stakeholders want. Their success requires coordinated capital investment by private and public stakeholders that can both meet market demands now and sustain their appeal for decades to come. Coordinated packages of economic incentives, design guidelines and center management or programming strategies will help all scales of mixed use centers succeed. These packages should be developed at the regional level so individual communities and property owners can benefit from the region’s best thinking and recommendations on the sustainable creation of Mixed Use Centers.

19. **Communications about North Texas 2050.** Though many North Texans have participated in Vision North Texas, there are still thousands who have not yet been engaged. A communications plan that uses a wide mix of traditional and interactive approaches must be developed, funded and initiated.

20. **Release a progress report at the 2011 Regional Summit.** The region’s stakeholders and decision-makers should convene in early 2011 to review progress in implementing *North Texas 2050* and to decide on priorities for following years.

21. **Prepare model codes for North Texas communities.** Creating and sustaining the compact, walkable communities that North Texans desire will require changes in development regulations for some cities within the region. Model regulations that apply the concepts of form-based codes, green design and New Urbanism to North Texas conditions should be prepared and shared online.

22. **Raise venture capital funding for sustainability research and businesses.** Innovation requires the support of initial investors. Through the Texas Sustainability Institute, North Texas should begin to raise venture capital that will support businesses of the future that can locate and grow here.

23. **Begin work on new tools to implement regional natural asset initiatives.** The role of natural assets in the region’s preferred future will require the use of new analytical tools and regional collaborations. Concepts such as the regional transfer of development rights, use of a regional conservancy to operate and manage conservation easements region-wide and incentives for production of food close to the region all involve dialogue and research. These activities should begin this year.

24. **Define entities and service areas for urban-scale wastewater service provision.** Efficient expansion of development within the outer tier areas will be supported by clearer criteria for the provision of the infrastructure for urban densities of development. NCTCOG should develop regional policies that support these practices and thus create subdivisions and communities that are sustainable (environmentally and financially) over the long term.

25. **Engage financial decision-makers to remove barriers to sustainable investment.** Financial institutions are not always familiar with
the economics of mixed use, compact development. Some aspects of sustainable development have lower life-cycle costs but require higher initial investments. The leaders of the North Texas financial community should work with the North Texas 2050 Action Team to identify and remove barriers to funding sustainable growth in this region.

26. **Initiate a new regional marketing effort.** The economic development stakeholders who participated in Vision North Texas agreed that the region needs to update and re-launch efforts to market the entire North Texas region to businesses and investors around the globe. This marketing effort should begin this year.

27. **Continue (and expand if possible) the Sustainable Development funding programs for planning and infrastructure.** NCTCOG has been successful in supporting sustainable development projects through this funding program in past years. It should continue this important program, and the criteria for future rounds of funding should be reviewed to align them with the North Texas 2050 recommendations.

28. **Begin efforts to support locally-grown food and local agriculture in North Texas.** Support of local agriculture and provision of locally-grown food to North Texans, have not been a focus of activity in past years. However, the work of Vision North Texas researchers and other national organizations demonstrates the importance of these efforts in terms of the region's physical development pattern and the health of its residents and communities. Initial discussions of action in this area should occur in 2010.

29. **Develop North Texas sustainability recognition programs.** Two types of recognition programs have been suggested by Vision North Texas stakeholders – a program to recognize development proposals that meet specific sustainability criteria and a program to offer certification to public officials (elected or appointed) who have completed training programs focused on sustainable design. The North Texas 2050 Action Team should evaluate these ideas and seek to find a neutral organization (possibly the Urban Land Institute North Texas District Council) willing to carry them out.

30. **Determine North Texas industry targets for the economy of the future.** Businesses of the future are likely to be clean, green and innovative. The region's economic organizations should initiate efforts this year to update past regional economic studies to define industry targets for the future. This first step will begin efforts to ensure that this region is globally competitive as a business location for decades to come, and that the North Texas 2050 preferred future will help direct and focus regional economic development activity.
Action Tools Online

The Vision North Texas website (www.visionnorthtexas.org) contains detailed information about some of the action tools. The action tool summary sheets answer questions such as:

* How does this tool work?
* How important is this tool to achieving the vision?
* What are the costs and benefits, and who will they affect?
* What are the biggest potential stumbling blocks to the use of this tool, and how can they be addressed?
* Who would be responsible for using this tool?
* How would it be funded?
* What are the next steps to put this tool in place?
* What examples of this tool are available in North Texas or elsewhere?

Online tool summaries may be updated and new summaries may be added to the website in the future. In addition, Vision North Texas has the benefit of ‘toolkits’ developed by national organizations and regional planning efforts in other regions. The Vision North Texas website contains links to those toolkits so stakeholders in this region can benefit from the experience in other communities.
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**Vision North Texas Research Team**

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Appendix 2: List of Potential Action Tools

Potential Action Tools

In the course of Vision North Texas work, over 200 potential action tools have been identified. The most important action tools are discussed previously. Below is a more detailed listing of the potential action tools.

**Incentives**
- Alternative Financing for Transportation, Option I
- Appr Value Limitation and Tax Credit
- Asst to support decentralized power generation
- Brownfield Program
- Carbon credits for ranching
- Carbon Sequestration Credits
- Community Dev Block Grants
- Change local zoning code to provide additional housing choices
- Conservation Easements
- Controlled-access facilities
- Decrease dev fees in areas targeted for revitalization or infill
- Designations that give targeted areas stronger incentives and inducements
- Developer up-front funding on ‘multi-generational’ projects
- Development Incentives
- Differential Assessment Programs
- Disincentivize Greenfield Development
- Employer assisted housing
- Enterprise Zones
- Farmland and Sensitive Habitat, Preservation Credits and Incentives
- Fast-tracking of projects that meet criteria for sustainability
- Financial incentives for infill
- First Time Homeowners Program
- Foreign Trade Zones
- Freeport Tax Exemptions
- Funding for Universities Conducting Training
- Green Space Conservation and Brownfield Revitalization
- High Efficiency Particle Air - Vacuum lending program
- Housing Choice Voucher Program
- Housing Rehabilitation Program
- Immigration & Investment Program
- Impact Fees & Infrastructure Funding
- Incentivize Brownfield Development
- Increase Impact Fees for the Removal of Natural Assets
- Industrial Development Bonds
- Linked Road-Rail Funding
- Neighborhood improvement grants
- Neighborhood Matching Grants
- Purchase of Development Rights (PDR)
- Residency Waiver for In-State Tuition Rates
- Rural Logistics Center
- Sales Tax for Economic Development
- Shared facility initiatives

**Best Practices**
- Capital Improvements Plan
- Complete Streets
- Farmers Market Programs
- Green campus design
- Harvest Rainwater
- Integrated Storm Water Management
- Location- and energy-efficient housing choice
- Management of ‘green’ or cool roofs
- Park-and-Ride
- Pervious paving materials
- PolicyLink’s Affordable Housing Tools
- Purple pipe (water reuse) initiatives
- Redev for affordable/public housing
- Residential and Commercial Water Conservation
- Restoration and enhancement of selected artificial drainage ways
- Sect 404 Permits for the Protection of High-Quality Watersheds
- Tax Abatement
- Texas Enterprise Fund
- TIF District
- Transit Use Incentives
**Model Ordinances/Templates**
* Active Transport to and from School
* Agricultural Zoning Designations
* Bicycle Pedestrian Access
* Compact Development
* Creating Diverse Communities
* Density, Height and Parking Codes
* Discourage Plating to Center of Streams
* Drought Contingency Plans
* Empty-nester’ housing initiatives
* Environmentally Sensitive Area Plans
* Establish vegetated stream and lake buffers
* Floodplain and stream management
* Floodplain Protection Ordinance
* Form-Based Codes
* Green Development Code
* Tree Preservation & Climate Change Mitigation
* Implementation of Water-Efficient Practices by Governments Entities
* Inner Tier Area neighborhoods design initiative
* Inspection of rental houses on routine basis
* Min Parking Req as Opposed to Max
* Mixed use ‘operational’ manuals
* Mixed use centers design initiative
* Mixed use code
* Model Ordinances for Emergency and Public Safety Response
* Natural Area uses and activities
* New landscape designs/parameters
* Open Space Master Plan
* Outer Tier Area neighborhoods design
* Parks & Trails Element as Part of City Comprehensive Plans
* Best practices for shuttles and other transp systems within mixed use centers
* Prohibit Plating to Center of Streams
* Proper Planning
* Proper usage of underutilized space
* Rural Area uses and activities
* Sensitive Area Zoning
* Separate Communities design initiatives
* Shopping Cart Retrieval Program
* Sustainable development ordinances and building codes
* Sustainable Neighborhood Plans
* Sensitive ’starter community’ initiatives
* Tree Preservation Ordinances
* Urban Heat Island reduction strategies
* Water Recycling/Reuse Techniques
* Water supply lake watersheds development guidelines
* Water-efficient Landscape Requirements

**Technical Assistance**
* Drought scenario evaluations
* Green MLS
* Maintain/Enhance groundwater aquifers
* Neighborhood Rev Mobile Data Access
* Stream Classification and Management

**Benchmarks & Indicators**
* College and workforce readiness
* Demographic and market research
* Economic models to measure greenhouse gas emission
* Establish & use NT livability benchmark measures
* Five-year performance targets
* Greenprinting
* Indicators for value of natural resources
* Maximum Gallons per Day per Capita Standards for Water Consumption/Use
* North Texas Sustainability Index
* Rating of Best Suburbs
* Redefine housing affordability
* Regional carbon footprint target
* Regional economic benchmarking
* Update regional greenhouse gas assessment
* Use of Predictive Models and Ambient Monitoring Programs
* Value & density analysis
* Wetland/U.S. Waters Regional Mapping

**New Institution/Entities**
* Alternative Financing for Transportation, Option II
* Appropriate/Inappropriate Areas for Onsite Wastewater System
* Bike Zone Investments
* Building Equitable Communities Initiative
* Cleantech/green job training
* Close the gap achievement initiatives
* Community Housing Development Organization Program
* County Land Use Authority Enabling Legislation
* Creating Dev & Job Creations Programs
* Economic programs for locally-grown food
* Education opportunities
* Educational collaboratives
* Educational financing
* Enhanced regional governance
* Flexible education provision
* Free Home Maintenance Training classes
* Graffiti Busters Program
* HOA Awareness Program
* Tools for control of land uses in ETJ & unincorporated areas
* Innovative learning centers
* Leadership class initiatives
* Legislation for annexation in urban regions
* Neighborhood services collaboration
* Neighborhood stabilization from foreclosures
* New Healthcare institutions for better care
* North Texas Sustainability Center
* NSD Weatherization Program
* Online systems for sharing information and best practices
* Partnering with nonprofit organizations
* Partnership with TDHCA
* Passenger Rail
* Promotion of historic assets
* Public Land Banking for Conservation Efforts
* Recruitment/retention initiatives
* Regional economic development entity
* Regional economic marketing
* Regional Grading Ordinance and Permitting
* Regional open space district
* Regional or Statewide Outdoor Recreation Plan
* Regional revenue sharing
* Regional urban growth boundary
* Regional Water & Wastewater Systems
* Regional Water Quality Protection Program
* Remove barriers that hamper economic vitality
* Revamp Water Pricing Structure
* Skills Development Fund
* State Legislation to mandate City and County Comprehensive Plans
* Storefront education
* Street Maintenance Sales Tax
* Strengthen Eminent Domain Powers to help with the Establishment of Conservation Easements
* Structure for redevelopment area economic development corporation
* Sustainability research collaborative
* Sustainability venture capital
* Sustainable Development Funding Program - Infrastructure
* Sustainable Development Funding Program - Planning
* Sustainable economic incentives
* Target industry reassessment
* Transportation Investment Act
* Transportation Management Associations
* US Department of Housing & Urban Development (HUD) Grant Funds
* Value Capture
* Value Pricing
* Wastewater Management Designation Recommendations
* Water Quality Protection Program
* Regional Collaboration & Coordination
* Adaptation policies
* Alternative energy priority areas
* Annual report on progress toward preferred future
* Cities to Expand/Establish New Community Water/Wastewater Systems
* Clean/Green prosperity initiative
* Coordinate and leverage federal investments in NT
* Education Vision 2050
* Explore opportunities for regional efforts to acquire and manage open space
* Focus regional infrastructure funding to encourage development consistent with the scenario(s)
* Healthy communities local municipalities network
* Housing Vision 2050
* Implementation of the Regional Ecosystem Framework
* Implementation org or structure for VNT
* Inter Agency Partner - Office of Livability
* Limits to the areas served by urban-scale water and wastewater systems
* Mitigation for removal of natural assets
* Mobility Plan Updates
* N Texas Municipal Sustainability Forum
* Require Water Quality Plan Updates
* Requirement that more water and associated corridors meet State and Regional water quality standards
* Transportation Investment Boundary
* Travel Demand Management
* Tree Canopy Surveying/Mapping
* Vision for the Regional Urban Forest
* Watershed-Based Zoning/Planning

**Communication**
* NT2050 Communicator Program
* NT2050 Training ‘credential’
* Outreach strategy
* Youth volunteer organization initiatives
Appendix 3: Glossary

**Annexation** – the act or process of adding land to a governmental unit, usually an incorporated place, by an ordinance, a court order, or other legal action. (A Planners Dictionary)

**Arterial** - is a moderate or high-capacity road which is immediately below a highway level of service. (Webster’s Dictionary)

**Baby Boomer** - is a term which portrays the age group born during the middle part of the 20th Century. (Wikipedia)

**Brownfield** – abandoned, idled, or under used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination. (A Planners Dictionary)

**Carbon (or ‘environmental’) Footprint** - the total set of greenhouse gas emissions caused by an organization, event or product. (Wikipedia)

**Complete Streets** – Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street. (www.completestreets.org)

**Comprehensive Plan** – the adopted official statement of a legislative body of a local government that sets forth (in words, maps, illustrations, and/or tables) goals, policies, and guidelines intended to direct the present and future physical, social, and economic development that occurs within its planning jurisdiction. (A Planners Dictionary)

**First Ring Suburbs** - are the older, more populous communities of a metropolitan area with histories that significantly predate those of their suburban or exurban counterparts. (Wikipedia)

**Floodplain** – the land area susceptible to inundation by water as a result of flood. (A Planners Dictionary)

**Greenfield Development** – development on undeveloped parcels not surrounded by existing development, or on large parcels surrounding partially developed areas or undeveloped areas. (A Planners Dictionary)

**Impact Fee** - a fee charged by local governments to developers as a total or partial reimbursement for the cost of providing additional facilities or services needed as a result of new developments. (A Planners Dictionary)

**Infrastructure** – facilities and services needed to sustain industry, residential, commercial, and all other land-use activities, including water, sewer lines, and other utilities, streets, roads, communications, and public facilities such as fire stations, parks, schools, etc. (A Planners Dictionary)

**Leadership in Energy and Environmental Design (LEED)** - Green Building Rating System, developed by the U.S. Green Building Council (USGBC), provides standards for the environmentally sustainable design, construction and operation of buildings and neighborhoods. (Wikipedia)
Kyoto Protocol - is a protocol to the United Nations Framework Convention on Climate Change (UNFCCC or FCCC), aimed at addressing climate change. (Wikipedia)

Metropolitan Statistical Area – a county with a central city or adjoining central cities totaling 50,000 or more in population, and the surrounding suburbs or counties that are strongly linked economically and socially. (A Planners Dictionary)

Mixed Use – a development of a tract of land or building or structure with two or more different uses such as but not limited to residential, office, retail, public, or entertainment, in a compact form. (A Planners Dictionary)

NCTCOG – North Central Texas Council of Governments

New Urbanism – The process of reintegrating the components of modern life – housing, workplace, shopping, and recreation – into compact, pedestrian-friendly, mixed-use neighborhoods linked by transit and set in a large regional open space framework. (A Planners Dictionary)

NTC – North Texas Commission

NTHC – North Texas Housing Coalition

Public Private Partnership - describes a government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies. (Wikipedia)

Sustainable - In ecology the word describes how biological systems remain diverse and productive over time. (Wikipedia)

Sustainable Development – development which meets the needs of the present without compromising the ability of future generations to meet their own needs. (U.N. Brundtland Report)

Sunbelt - is a region of the United States generally considered to stretch across the South and Southwest (the geographic southern United States). (Wikipedia)

Tax Abatement – the full or partial exemption from ad valorem taxes of certain real and/or personal property in a reinvestment zone designated for economic development purposes. (A Planners Dictionary)

Transit-Oriented Development (TOD) – moderate and high-density housing concentrated in mixed-use developments located in close proximity to transit stations or stops that encourages the use of public transportation. (A Planners Dictionary)

ULI – Urban Land Institute

ULINT – Urban Land Institute North Texas District Council

Urban Forest - is a forest or a collection of trees that grow within a city, town or a suburb. (Wikipedia)

Urban Heat Island - is a metropolitan area which is significantly warmer than its surrounding rural areas. (Wikipedia)

UTA – the University of Texas at Arlington

Watershed – the total area above a given point on a watercourse that contributes water to its flow; the entire region drained by a waterway or watercourse that drains into a lake or reservoir. (A Planners Dictionary)