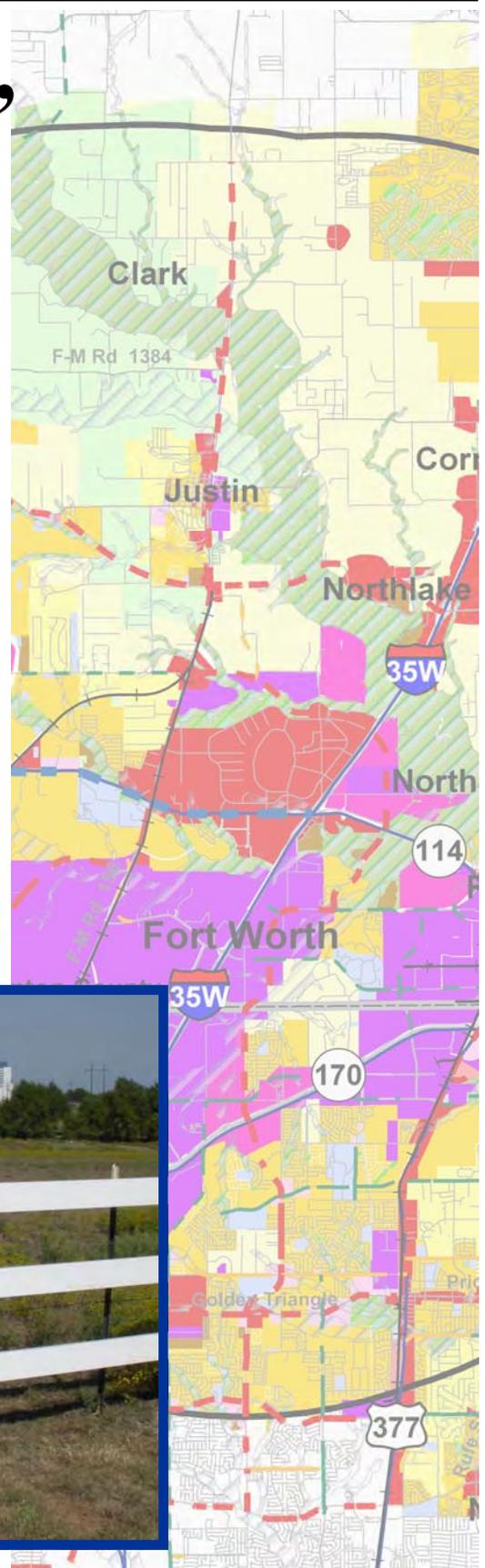


# REGIONAL CONTEXT, COOPERATION, AND FUTURE PLANNING OPPORTUNITIES

# 9



The initial boundary of the Texas Motor Speedway study area was described as Eagle Parkway to the south, the BNSF Railroad right-of-way to the west, the proposed route of FM 1171 to the north, and the Denton Creek floodplain to the east. During early stages of planning for the transportation study population and employment projections, the need for a larger study area was identified to capture a more complete data set for analysis. This larger study area boundary, known as the TMS population and employment projection study area, is contained within a six-mile buffer drawn from the perimeter of TMS. Much of this larger study area is sparsely developed and rural in character, but it will experience significant development pressure from Fort Worth, Denton, and the Mid-Cities. Fort Worth Planning and Development Department staff recognized the need to begin to address this development pressure from a sub-regional perspective.

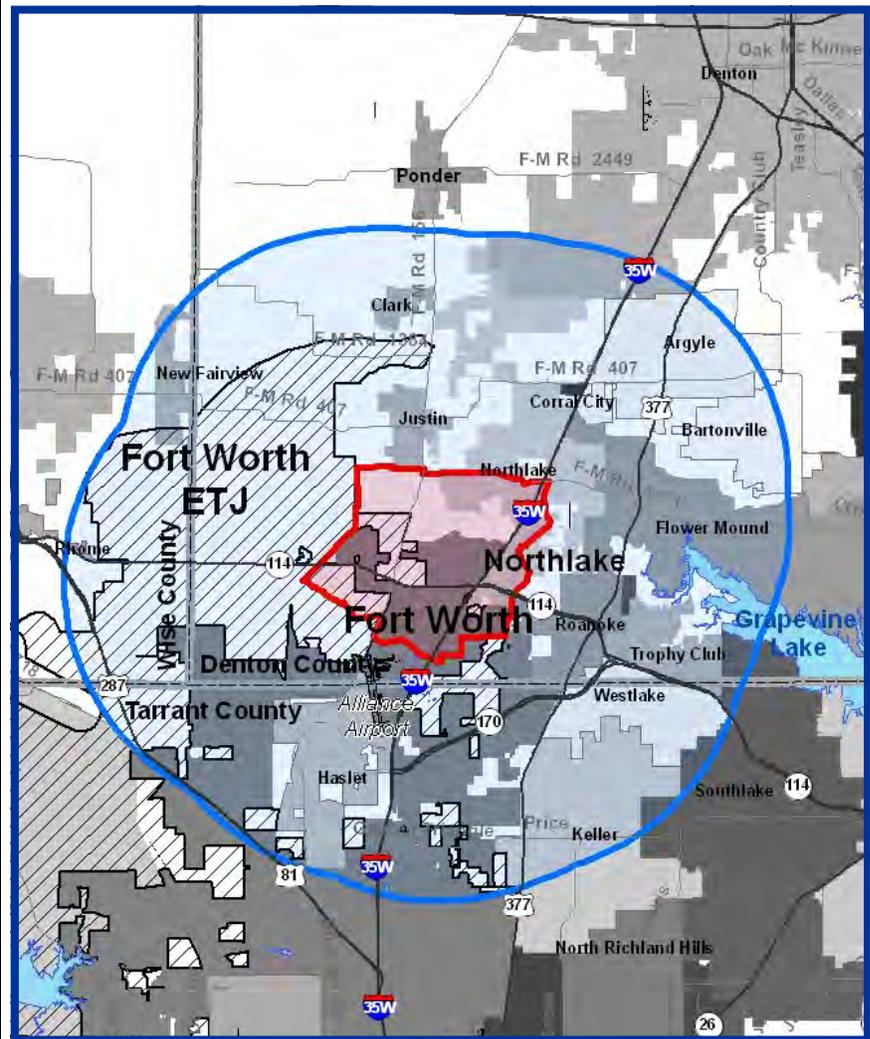


Figure 9.1 The TMS demographic study area is bounded by a six-mile radius drawn from the perimeter of the TMS property. The initial TMS study area is identified in red.

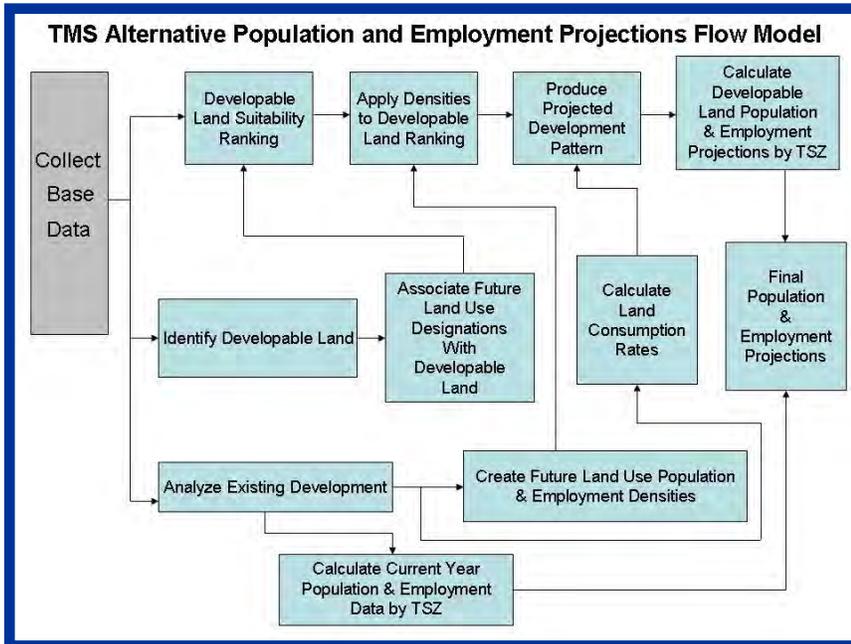


Figure 9.2 Alternative Population and Employment Projections Flow Model

### Population and Employment Projections Summary

City staff developed the Texas Motor Speedway area population and employment forecast to provide an alternative data set for traffic modeling associated with the transportation component of the TMS area master plan. The data set provides forecasted population and employment figures for the years 2015 and 2030. The transportation study used this data as a locally generated alternative to the outdated but required regionally-approved projections developed by the North Central Texas Council of Governments (NCTCOG) in 2003 for modeling purposes. Traffic modeling performed by NCTCOG provided the basis for the transportation system analysis and recommendations contained in the TMS master plan.

The City of Fort Worth Planning and Development Department also used the population and employment projections for analysis purposes to develop future land use recommendations for the TMS study area master plan. These projections indicate population and employment growth surpassing the projections developed by NCTCOG for both 2015 and 2030. The Planning and Development Department population projections are approximately 20% higher and the employment projections are approximately 5% higher than the existing regionally-approved projections. The projected increase in population and

Population Growth of Selected Cities 1990-2008			
	Final Census	Final Census	Estimated Population
	4/01/1990	04/01/2000	01/01/2008
Denton	66,270	80,537	106,050
Flower Mound	15,527	50,702	62,450
Roanoke	1,616	2,810	6,150
Fort Worth	447,619	534,694	702,850
Keller	13,683	27,345	38,400
Southlake	7,082	21,519	26,100

Table 9.1 Population growth of selected cities, 1990-2008. Source: NCTCOG, 2008

<b>Comparison of Projections</b>		
	<b>Population</b>	<b>Employment</b>
Base 2007	143,119	45,896
NCTCOG 2015	207,488	123,627
CFW Alternative 2015	245,022	130,846
NCTCOG 2030	303,994	183,930
CFW Alternative 2030	364,658	192,770

Table 9.2 Comparison between 2003 NCTCOG regionally-approved and TMS study alternative projections.

employment in the TMS projection study area is consistent with the high growth rates experienced in Fort Worth, Denton, Keller, Roanoke, Southlake, and Flower Mound between 1990 and 2007.

### **Population Projections**

The base population of the study area as of July 1, 2007 was 143,119. The NCTCOG regionally-approved 2015 population projection is 207,488 and the approved 2030 population projection is 303,994. The alternative population projections for the six-mile study area indicate an increased growth rate, with the 2015 population reaching 235,158 and the 2030 population reaching 357,163.

### **Employment Projections**

The base employment of the study area as of July 1, 2007 was 45,896. The NCTCOG regionally-approved employment projection for 2015 is 123,627 and the 2030 projection is 183,930. The alternative employment projections for the study area are 128,085 for 2015 and 192,776 for 2030.

### **Land Use**

The land use pattern established over time within the study area will drive necessary transportation improvements, contribute to quality of life for area residents, and affect the area's economic competitiveness. The TMS population and employment projection study area includes property in 15 separate jurisdictions: Argyle, Bartonville, City of Denton, Denton County, Flower Mound, Fort Worth, Haslet, Justin, Keller, New Fairview, Northlake, Roanoke, Southlake, Tarrant County, Trophy Club, and Westlake. Each of these jurisdictions develops plans for future growth independently, complicating the task of projecting future development patterns and infrastructure needs.

### **Existing Future Land Use Plans**

A standardized map of future land uses was needed to understand how development would occur if in conformance with currently approved land use plans. Staff analyzed each of the individual communities' comprehensive plans and future land use maps. This information, aggregated at a sub-regional scale into a standardized, color-coded map, illustrates future land uses for the entire population and employment projection study area. The density and intensity of development related to the individual land use codes was used, in combination with the projected distribution and rate of development activity in the area, to project population and employment figures for the alternative projections data set.

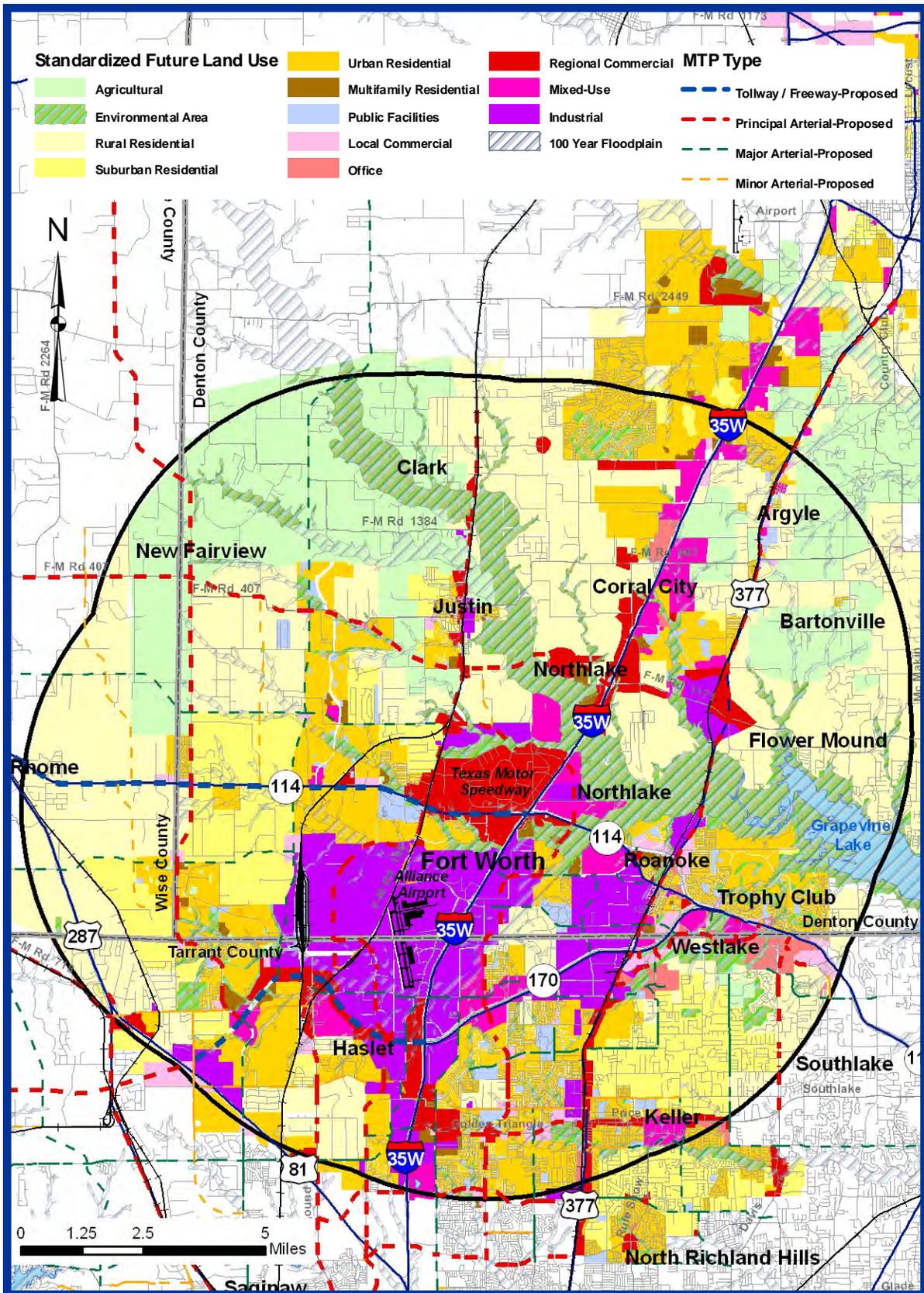


Figure 9.3 TMS population and employment projection study area standardized and aggregated future land use map

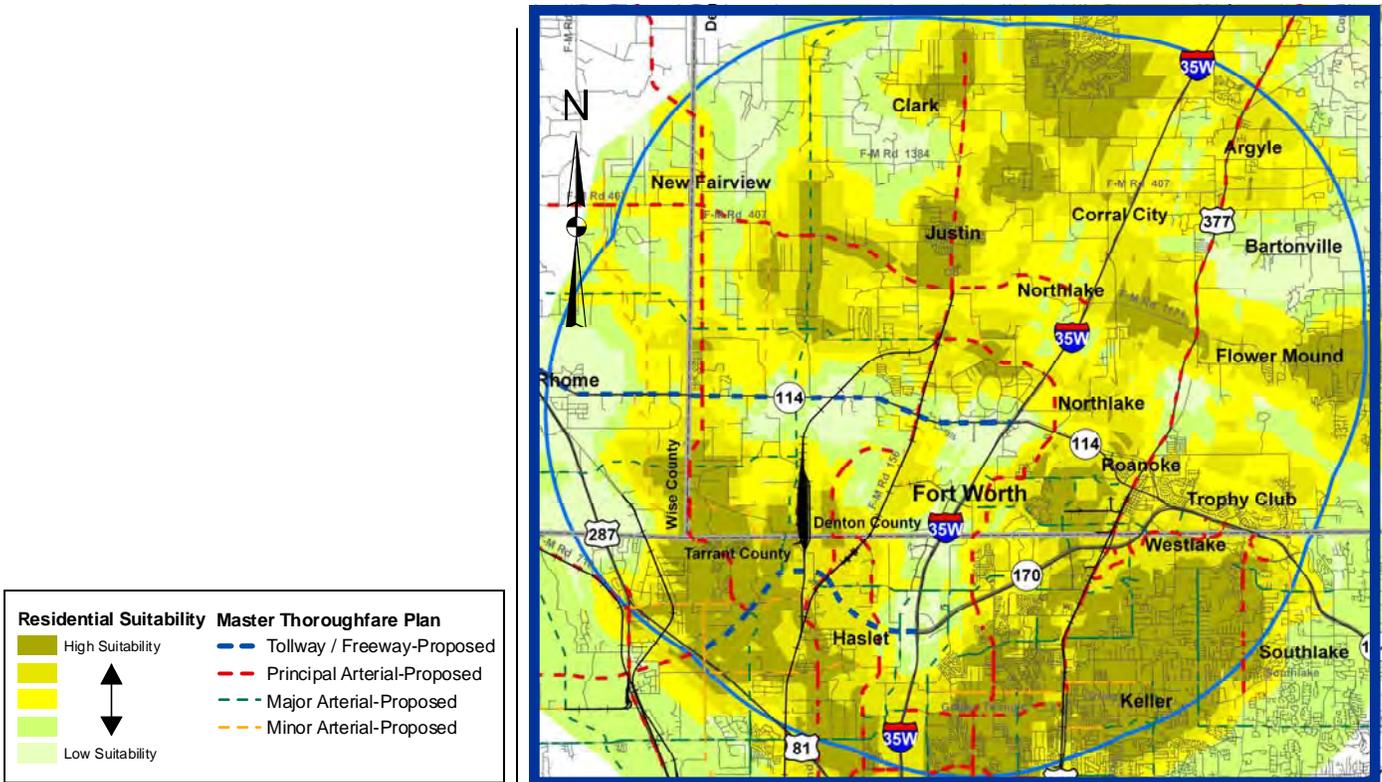


Figure 9.4 TMS study area residential suitability map

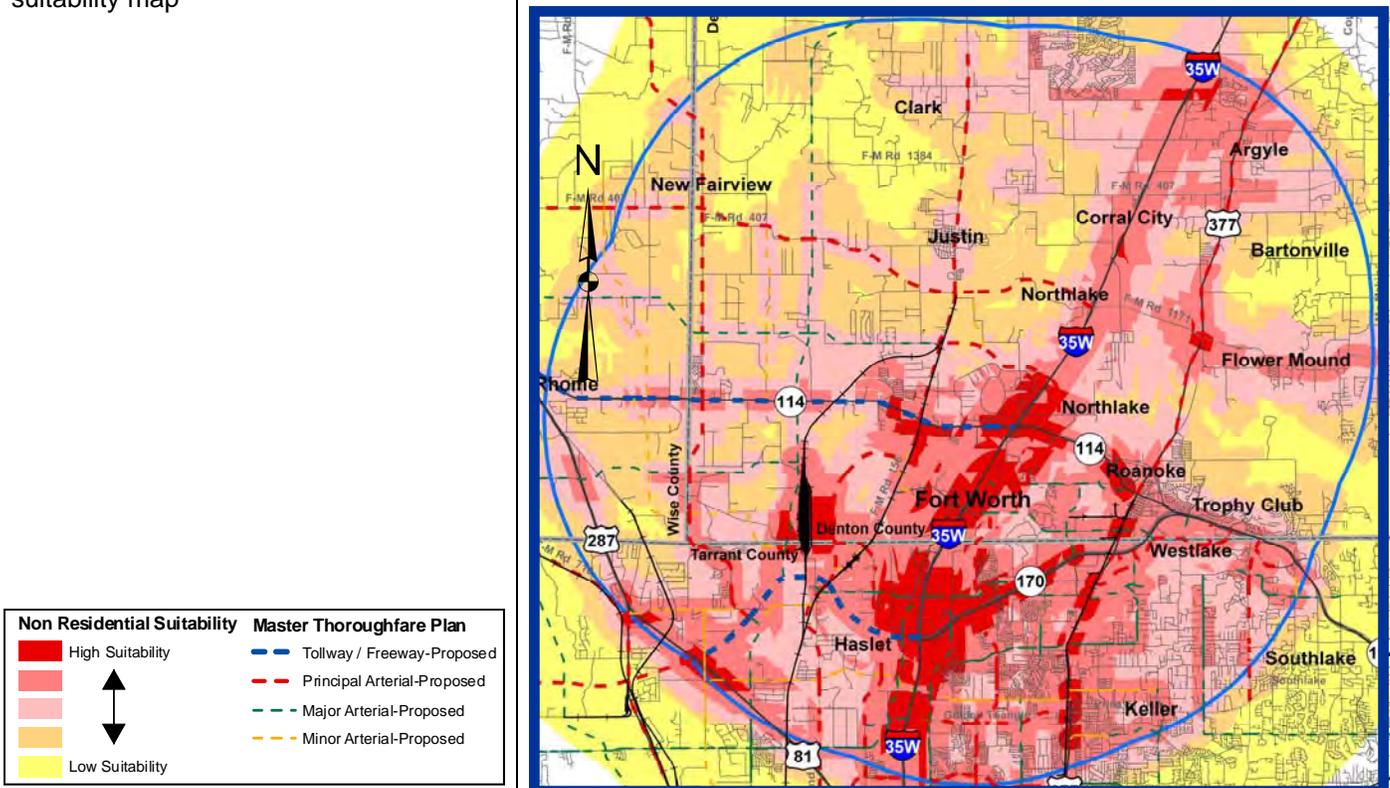


Figure 9.5 TMS study area non-residential suitability map

### Projected Land Use Pattern

Fort Worth Planning and Development Department Staff conducted an analysis of recent land consumption rates and land suitability within the study area to identify properties with a higher probability of development during the 2015 and 2030 time horizons. By applying the projected rate and location of new development activity to existing land use plans, staff was able to determine the expected development pattern for the study area. A projected development pattern map was generated to depict the spatial distribution of population and employment for the years 2015 and 2030 (See Figure 9.6). Development types and densities permitted within the standardized future land use designations were ascribed to the projected development pattern in 2015 and 2030 to produce the projected population and employment for the study area.

### Potential Development Patterns

An analysis of the jurisdictions' approved future land use plans projects a uniform, low-density development pattern at a sub-regional scale. The uniformly low intensity of development, separation of land uses, high percentage of single-family residential development, and strip commercial centers built to accommodate the automobile are all features of suburban sprawl. This conventional suburban development pattern is known to contribute to congested roads, limit economic development, degrade environmental resources, and reduce air quality.

An alternative development pattern that more effectively uses multiple modes of transportation and increases preservation of rural land and open spaces would be beneficial for the long term sustainability of the area. This potential development pattern, illustrated in Figure 9.8, focuses on the implementation of mixed-use growth centers located near potential transit stations. The map uses general development forms instead of specific land use types to indicate a potentially more sustainable future development pattern. Fort Worth Planning and Development Department staff chose seven form categories, based on the transect developed by the Congress of New Urbanism, ranging generally from least-to-most intense. These categories are:

- **Natural/Conservation/Agricultural**
- **Rural**
- **Suburban**
- **Urban**
- **Urban Center**
- **Suburban Industrial**
- **Urban Industrial**

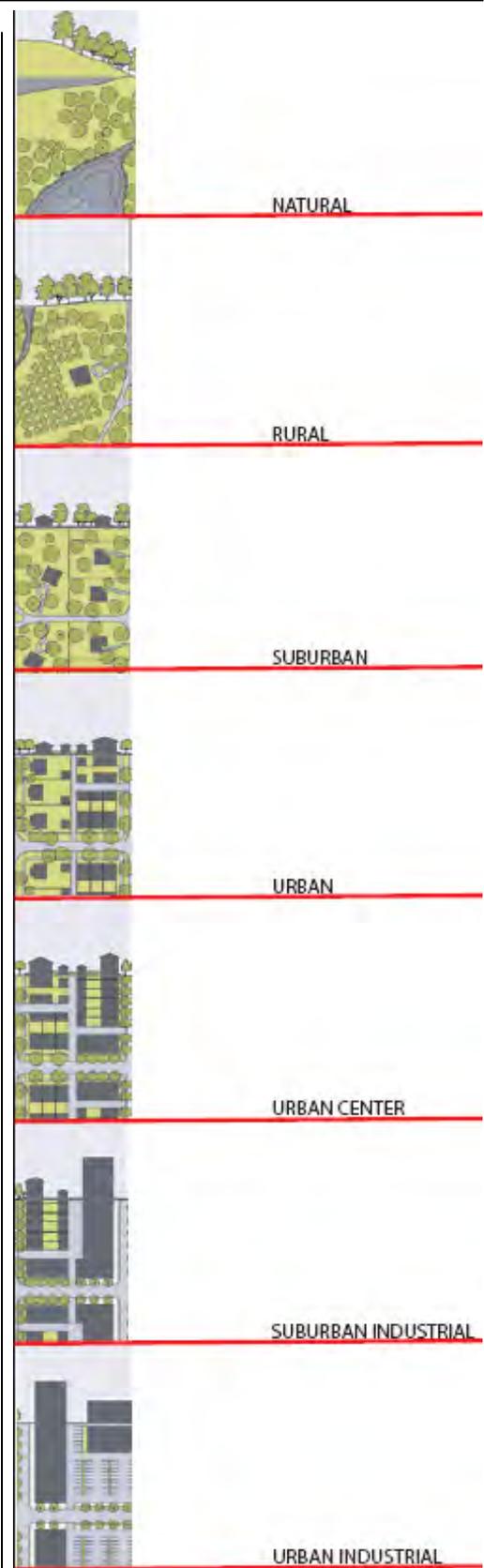


Figure 9.6 Development Form Categories