Socioeconomic Assessment
Central City General Investigation
Fort Worth, Texas

Introduction

Background

The Central City General Investigation is proposing three (3) alternatives identified to reduce flood damages and improve the existing environment through ecosystem restoration and other quality-of-life parameters within the proposed study area in downtown Fort Worth, Texas. The proposed alternatives consist of the three (3) multi-purpose plans consisting of the following: (a) the Principles and Guidelines (P&G) alternative which consists of a levee raise, construction of a small length of flood wall and provision for flood gates at areas that currently are not high enough to provide SPF protection, (b) the "Community Based" alternative which consists of a bypass channel, levee system, and associated improvements to divert flood flows around a segment of the existing Trinity River adjacent to downtown Fort Worth, and (c) the "Community Based Connected Actions" alternative which consists of the Community Based alternative plus the potential connected actions such as levee removal, land use intensification, transportation modifications, and extension and/or modification of water linkages. Additionally, the "No Action" alternative which is equivalent to the future without-project conditions is considered. This work effort will produce a detailed description of the parameters described below that may be used as part of an Environmental Impact Statement (EIS). The EIS will help meet the intent of the National Environmental Policy Act (NEPA), and other Federal statutes, including Executive Order 12898, through an expert investigation and analysis of potential socioeconomic impacts that could result from the proposed alternatives in conjunction with projects of others that are likely to be constructed in the reasonably foreseeable future.

Objective

The objective of the socioeconomic assessment is to describe the existing, future without, and future with project socioeconomic setting within the defined study area for each alternative. The socioeconomic setting is described using the following parameters: (a) geographic and political location, (b) housing characteristics, (c) community/neighborhood descriptions, and (d) vehicular/transportation description. Additionally, the socioeconomic assessment describes the unavoidable and adverse impacts, beneficial impacts, and cumulative impacts as they relate to the above parameters and considers other projects likely to be constructed in the reasonably near future.

Study Area versus Project Area

The study area used for the socioeconomic assessment is an area of roughly 9,700 acres. It is bordered by 28th Street on the north, I-30 on the south, North Sylvania and Riverside

Drive on the east, and a western boundary consisting of the Western edge of the cultural district, the western edge of Greenwood Cemetery, eastern edge of the Crestwood Addition, down the West Fork of the Trinity River to the Sunset Acres Addition, up through the Rosen Heights neighborhood along Adam and Hanna Avenues. This is the area viewed in the broader context of the socioeconomic assessment as it includes the area that will be most impacted and the surrounding area subject to more indirect impacts of the project and any ancillary development. The project area is the area thought to be the most impacted by the bypass channel and other associated projects and is centered within the study area. It is bounded by the Burlington Northern Railroad on the west, the Trinity River and Clear Fork on the east, Marine Creek on the north, and West 7th Street on the south. In assessing the demographic characteristics of the project area, an area larger than the delineated project area described above was used. This area coincides with the three census blocks that intersect the project area. Census block 1020.001, on the southern end of the project area, additionally captures the area west of the Burlington Northern Railroad to University Drive and the south to I-30 including the area surrounding the Will Rogers Complex east of Montgomery Street. The primary demographic data captured within this census block is the Linwood Addition which is regarded as being homogenous to the project area. Additionally, census block 1010.002 which makes up the majority of the project area captures information from the Ripley Arnold housing project where Radio Shack's new corporate headquarters is now located. Again, the population demographics of the housing project are considered indicative of the population demographics of the project area.

Study Area Demographics (Existing and Future)

Race and Ethnicity

The following table depicts the racial and ethnic makeup for Tarrant County, the study area, and the project area for the years 2000 and 1990.

Table 1
County and Project Area Racial Composition

	Tarrant County				Study Area				Project Area			
	1990		2000		1990		2000		1990		2000	
Total Population	1,170,103	100.0%	1,446,219	100.0%	36,932	100.0%	38,945	100.0%	4,208	100.0%	4,715	100.0%
Male	578,095	49.4%	713,549	49.3%	19,245	52.1%	20,409	52.4%	2,402	57.1%	3,083	65.4%
Female	592,008	50.6%	732,670	50.7%	17,687	47.9%	18,536	47.6%	1,806	42.9%	1,632	34.6%
Hispanic	133,979	11.5%	285,338	19.7%	18,930	51.3%	23,658	60.7%	1,387	33.0%	2,031	43.1%
White	859,883	73.5%	895,446	61.9%	11,348	30.7%	10,373	26.6%	1,384	32.9%	1,382	29.3%
Black	140,512	12.0%	180,457	12.5%	6,078	16.5%	4,275	11.0%	1,371	32.6%	1,232	26.1%
Asian, Hawaiian, PI	29,175	2.5%	52,303	3.6%	285	0.8%	306	0.8%	0	0.0%	59	1.3%
American Indian	5,575	0.5%	6,856	0.5%	189	0.5%	171	0.4%	51	1.2%	5	0.1%
Other	979	0.1%	25,819	1.8%	116	0.3%	162	0.4%	15	0.4%	6	0.1%

Total population for Tarrant County increased almost 24 percent from 1990 to 2000 while total population for the study area increased five percent and 41 percent for the project area. All ethnic groups saw increases in population in Tarrant County with the Hispanic population having the largest, an increase of 113 percent. Hispanic population increased almost 25 percent in the study area and 135 percent for the project area. White population had the smallest percentage increase for the county at just over four percent while decreasing over 8.6 percent in the study area but increasing 26 percent for the project area. Population for blacks increased 28 percent for the County but decreased almost 30 percent for the study area and just over six percent for the project area.

Income Levels

The following charts illustrate the income distribution for Tarrant County and the study area in 1990 based on household income for the 1990. Chart 1 depicts the income distribution for Tarrant County, study area, and the project area in 1990 based on household income from the 1990 census.

Chart 1

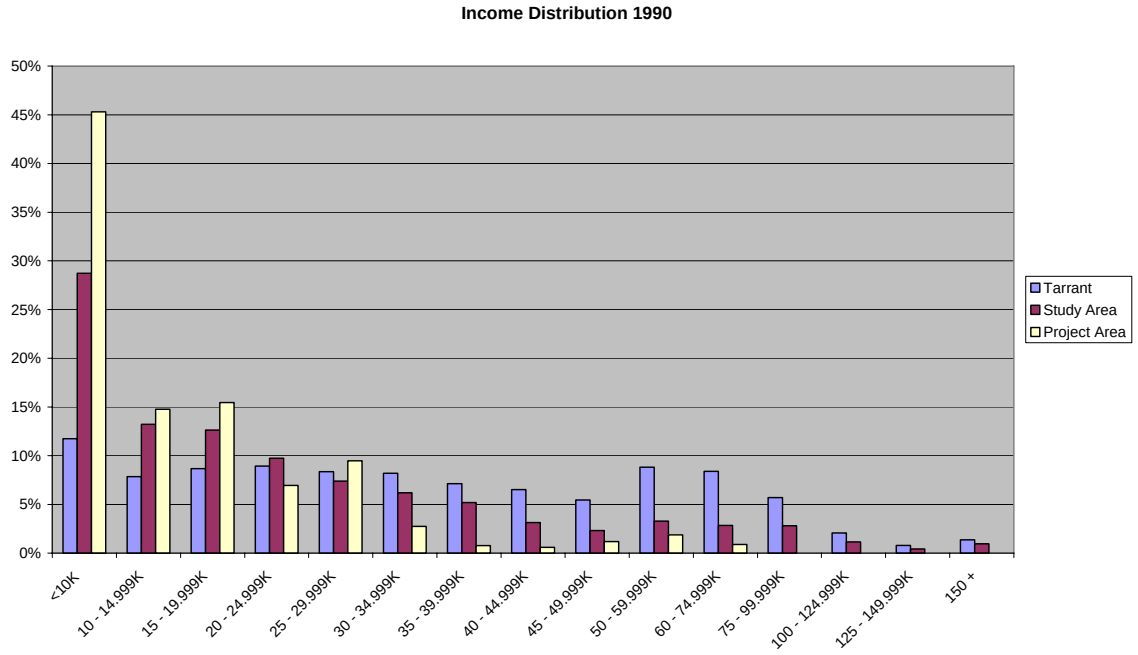
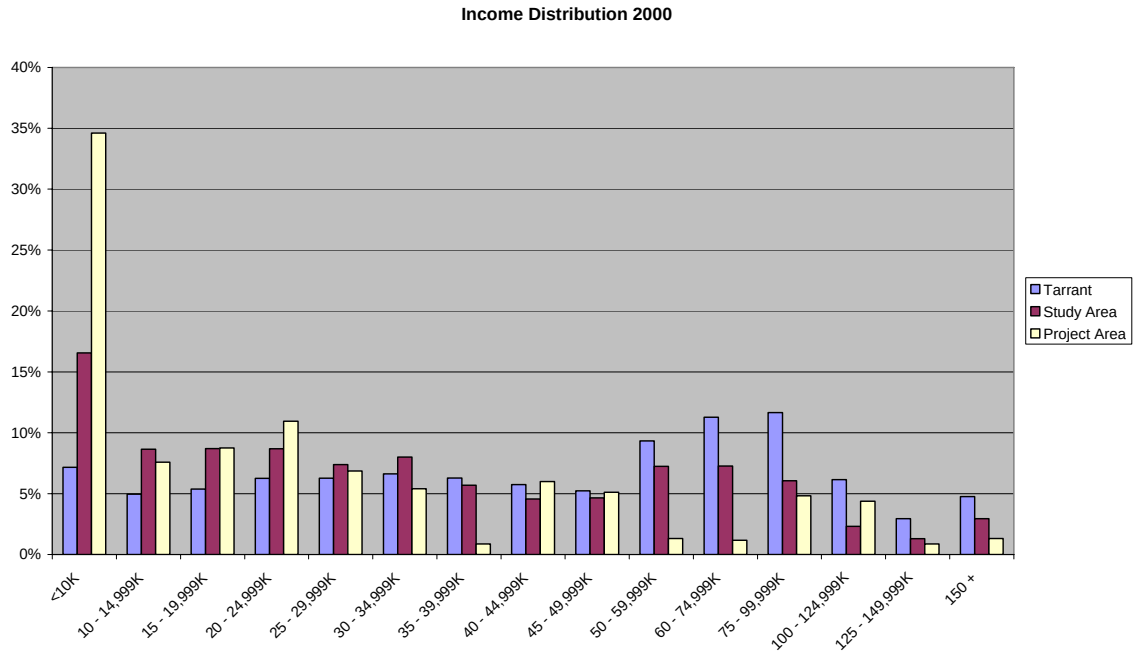


Chart 1 shows a relatively even distribution of income for the county with only 11.7 percent of the households having incomes less than $10,000. Almost 29 percent of the households in the study area had incomes less than $10,000 and over 45 percent of the households in the project area. By contrast, Chart 2 shows the income distribution for the county and the study area for 2000.

Chart 2



In 2000, the percentage of households having incomes less than $10,000 decreased to 7.2 percent for Tarrant County and decreased to 16.6 percent for the study area. Households having incomes less than $10,000 dropped to 35 percent for the project area.

Table 2 displays the number of households, aggregate household income, and average household income for Tarrant County and the study area in 1990 and 2000.

Table 2
Household Income for County, Study Area, and Project Area

	Tarrant County		Study Area		Project Area	
	1990	**2000**	**1990**	**2000**	**1990**	**2000**
Total Households	439,335	534,019	11,539	11,955	1,022	685
Agg. Household Income	17,607,117,254	32,100,894,600	313,840,671	539,184,900	14,522,762	21,502,400
Avg. Household Income	40,077	60,112	27,198	45,101	14,210	31,390

Average household income for the study area was 32 percent less than the county in 1990 and 25 percent less than that of the county in 2000, a slight improvement relative to the county. By contrast, average household income for the projects area is 65 percent less than the county in 1990 and 48 percent less than the county in 2000.

Poverty Status

Table 3 describes the poverty status of both Tarrant County and the study area.

Table 3
County, Study Area, and Project Area Poverty Status

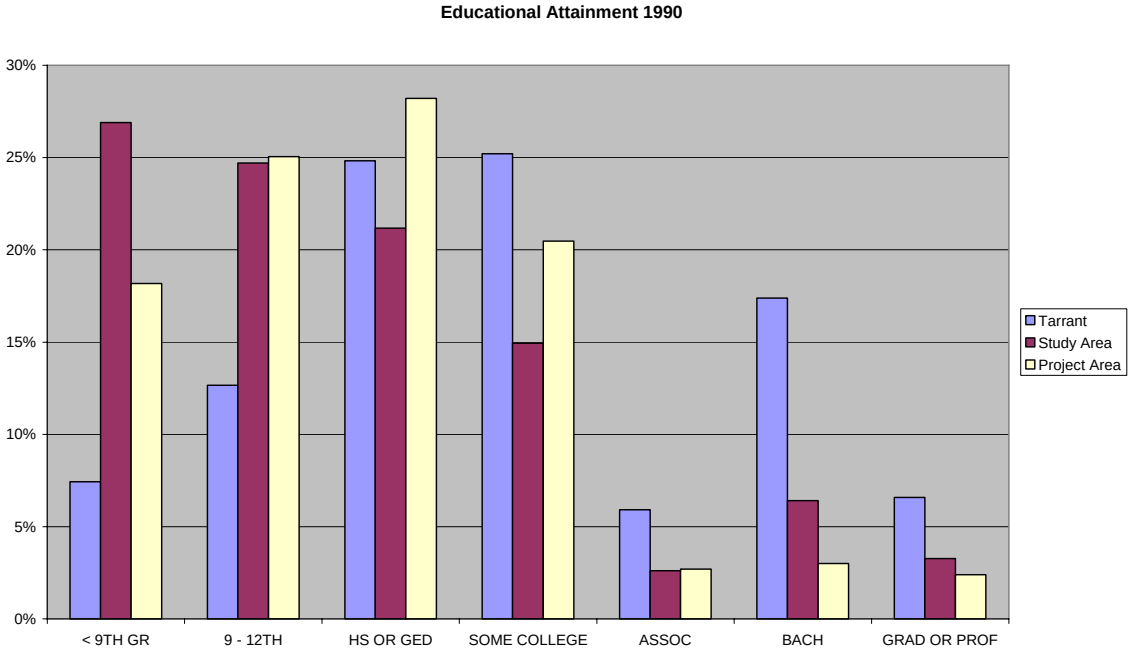
	Tarrant County		Study Area		Project Area	
	1990	**2000**	**1990**	**2000**	**1990**	**2000**
Total Population for Poverty Level	1,149,013	1,421,383	33,959	35,737	2,423	2,064
Total Population Above Poverty Level	1,022,460	1,270,895	23,307	27,715	1,187	1,193
Total Population Below Poverty Level	126,553	150,488	10,652	8,022	1,236	871
Percent Above Poverty Level	89.0%	89.4%	68.6%	77.6%	49.0%	57.8%
Percent Below Poverty Level	11.0%	10.6%	31.4%	22.4%	51.0%	42.2%

The percentage of the population in Tarrant County living below the poverty level was eleven percent for 1990 and declined slightly to 10.6 percent in 2000. The study area by contrast, had 31.4 percent of its population living below the poverty level in 1990. The percentage living below the poverty decreased to 22.4 percent in 2000, a substantially larger drop relative to the county. The project area had over 51 percent of its population living below the poverty level in 1990 declining to 42.2 percent in 2000.

Educational Attainment

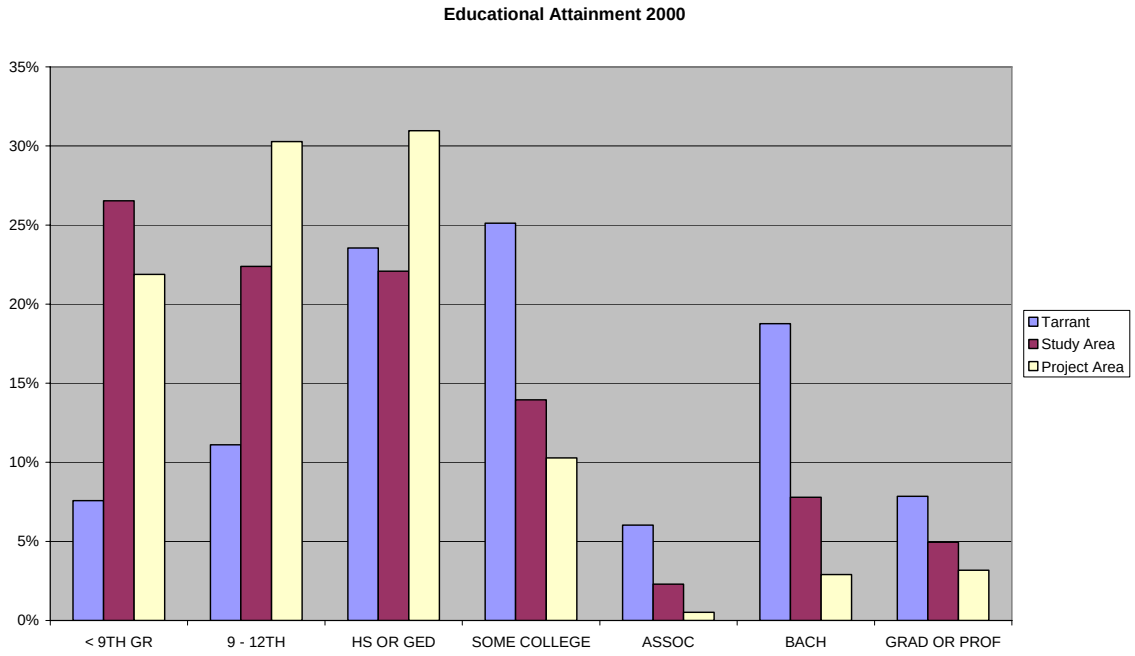
Chart 3 depicts educational attainment for Tarrant County, the study area, and the project area for 1990.

Chart 3



In 1990, almost 28 percent of the population of the study area had less than a ninth grade education of those 25 and over. This compares with only 7.4 percent of the population 25 and over for Tarrant County. About 18 percent of the project area's population had less than a ninth grade education. Almost 25 percent had less than a high school education in the study area and 28 percent for the project area while 12.7 percent of the over 25 population had less than a high school education for the county. Chart 4 depicts educational attainment for 2000.

Chart 4



This chart displays many of the same disparities in educational attainment between Tarrant County, the study area, and the project area. The study area did see small percentage reductions in lower levels of educational attainment for 2000 but these were offset by increases in higher levels of educational attainment, particularly attainment of bachelor's degrees as well as professional and graduate degrees. The project area saw an increase in the percentage of the population with less than a high school education and other lower levels of education. Additionally, the project area saw decreases in higher levels of educational attainment with the exception of graduate and professional degrees.

Unemployment

Table 4 displays the unemployment rates in 1990 and 2000 for both Tarrant County and the study area.

Table 4
County, Study Area, and Project Area Unemployment Rates

	Tarrant County		Study Area		Project Area	
	1990	**2000**	**1990**	**2000**	**1990**	**2000**
Male Labor Force	349,640	408,737	8,893	9,488	546	446
Employed	329,516	391,793	7,852	8,723	473	381
Unemployed	20,124	16,944	1,041	752	73	65
Unemployment Rate	5.8%	4.1%	11.7%	7.9%	13.4%	14.6%
Female Labor Force	285,758	340,752	5,648	6,280	388	284
Employed	269,429	323,594	4,959	5,489	306	240
Unemployed	16,329	17,158	689	791	82	44
Unemployment Rate	5.7%	5.0%	12.2%	12.6%	21.1%	15.5%
Combined Labor Force	635,398	749,489	14,541	15,768	934	730
Employed	598,945	715,387	12,811	14,212	779	621
Unemployed	36,453	34,102	1,730	1,543	155	109
Unemployment Rate	5.7%	4.6%	11.9%	9.8%	16.6%	14.9%

The combined unemployment rate for Tarrant County for 1990 stood at 5.7 percent. The same rate for the study area was 11.9 percent and 16.6 percent for the project area. In 2000, the combined unemployment rate for Tarrant was 4.6 percent, 9.8 percent for the study area, and 14.9 percent for the project area, an improvement for three areas.

Study and Project Area Housing Characteristics

The following table describes the average home values, as well as percentage of home ownership, percentage of rentals.

Table 5
County, Study Area, and Project Area Housing Characteristics

	Tarrant County		Study Area		Project Area	
	1990	**2000**	**1990**	**2000**	**1990**	**2000**
Total Housing Units	491,152	565,830	13,260	12,958	1,180	761
Occupied Housing Units	438,634	533,864	11,622	11,829	982	698
Vacant Housing Units	52,518	31,966	1,638	1,129	198	63
Owner Occupied	254,897	324,754	5,610	5,669	179	189
Renter Occupied	183,737	209,110	6,012	6,160	803	509
Agg. Val. For Owner Occ. Units	20,212,397,000	33,328,205,000	315,415,500	469,925,000	5,097,500	7,975,000
Avg. Val. For Owner Occ. Units	79,296	102,626	56,224	82,894	28,478	42,196
Owner Occupied %	58.1%	60.8%	48.3%	47.9%	18.2%	27.1%
Renter Occupied %	41.9%	39.2%	51.7%	52.1%	81.8%	72.9%
Vacancy Rate	10.7%	5.6%	12.4%	8.7%	16.8%	8.3%

Project Area Schools and Public Facilities

Schools

Within the study area, the Fort Worth Independent School District has seven elementary schools, one middle school, one traditional high school, and one alternative high school. As of November 2004, the Office of Communications for the school districts says no new school construction is planned.

Public Facilities

Table 6 lists the number of city-owned facilities in the study area as well as the department managing the facility.

Table 6
City Facilities

Occupying Department	Number
City Manager's Office	3
City Services/Equipment Services	4
Code Compliance	1
Engineering	1
Fire Department	6
Golf and Tennis	1
IT Solutions	4
Library	2
Municipal Parking Garage	2
Parks and Community Services	34
Police Department	12
Public Health	13
Sewer/Waste Water Treatment	1
Transportation/Public Works	4
Water/Field Operations	2
Water/Pumping	7

Land Use

The following chart depicts the total number of square acres with in the study area and their associated existing land use. Just over 43 percent of the 7,206 acres is classified for commercial and industrial use. An additional 20 percent is classified as vacant platted while over 17 percent is classified as residential. Acreage makes up almost 11 percent of the study area land use. The remaining eight to nine percent of the study area is classified as utilities, farm/ranch, residential inventory, and unclassified.

Table 7
Existing Study Area Land Use Classification

Classification	Number of Parcels	Square Acres	%
Commercial/Industrial	2396	3103.3	43.1%
Vacant	2227	1438.7	20.0%
Residential	6300	1251.8	17.4%
Acreage	42	785.6	10.9%
Unclassified	492	343.7	4.8%
Utilities	103	223.4	3.1%
Farm/Ranch	3	52.1	0.7%
Residential Inventory	33	7.2	0.1%
	11596	**7205.8**	100.0%

Table 8 depicts the project area land use classification. Like the land use classification of the study area, commercial and industrial land make the largest classification with just over 45 percent or 182.4 acres. Vacant platted land makes up almost 18 percent and acreage makes up another 16 percent. Land classified for utilities accounts for another 14 percent and unclassified land takes up 6.4 percent of the project area. Residential land makes up less than one half of one percent.

Table 8
Existing Project Area Land Use Classification

Classification	Number of Parcels	Square Acres	%
Commercial/Industrial	223	182.4	45.2%
Vacant	54	72.1	17.8%
Acreage	4	65.3	16.2%
Utilities	10	57.0	14.1%
Unclassified	12	25.7	6.4%
Residential	3	1.4	0.3%
Total	**306**	**403.9**	100.0%

Comparative Land Value

In order to assess the value of the project area relative to other comparably sized areas of the city, 700-acre sections were drawn using GIS. These sections included the project area, as well as sections centered around Downtown, the Stockyards, the Hospital District, Riverside, MLK Freeway, River Oaks, White Settlement Road, and Haltom City. The total average value per acre for the project area ranked as the third lowest, with only the MLK and Riverside sections having lower total average per acre values. Table 9 describes the average per acre values, broken down by residential, commercial and industrial, and total. Additionally, the percentage of vacant land for each section is listed for each section. Chart 5 depicts the average total land values for all nine regions and chart 6 depicts the residential, commercial and industrial, and total average land values in a head-to-head comparison of the project area and downtown.

Table 9
Comparative Average Land Values Per Acre and Percentage of Vacant Land

Area	Residential	Commercial/Industrial	Total	% Vacant
MLK	$11,457	$36,710	$16,210	23%
Riverside	$18,768	$46,699	$29,771	11%
Project Area	$18,252	$60,481	$31,307	14%
Haltom	$27,650	$47,825	$33,234	20%
Stockyards	$27,225	$61,746	$45,405	12%
River Oaks	$35,225	$84,740	$49,174	10%
White Settlement Rd.	$51,334	$145,119	$123,897	9%
Hospital	$141,591	$203,779	$175,463	25%
Downtown	$291,754	$897,993	$563,384	9%

Chart 5

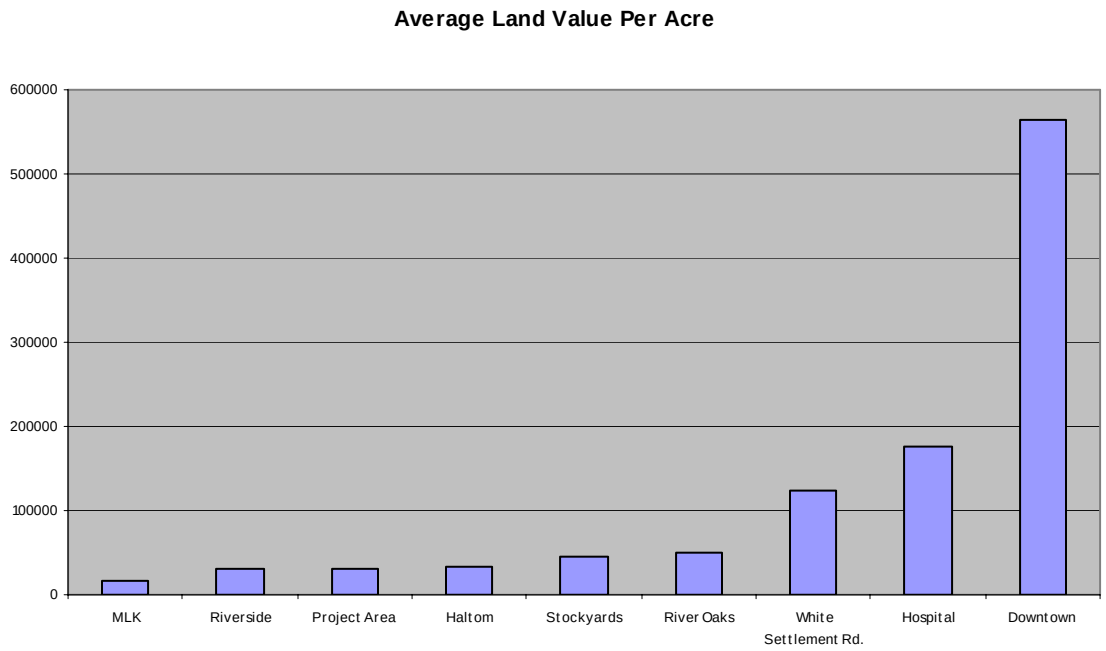
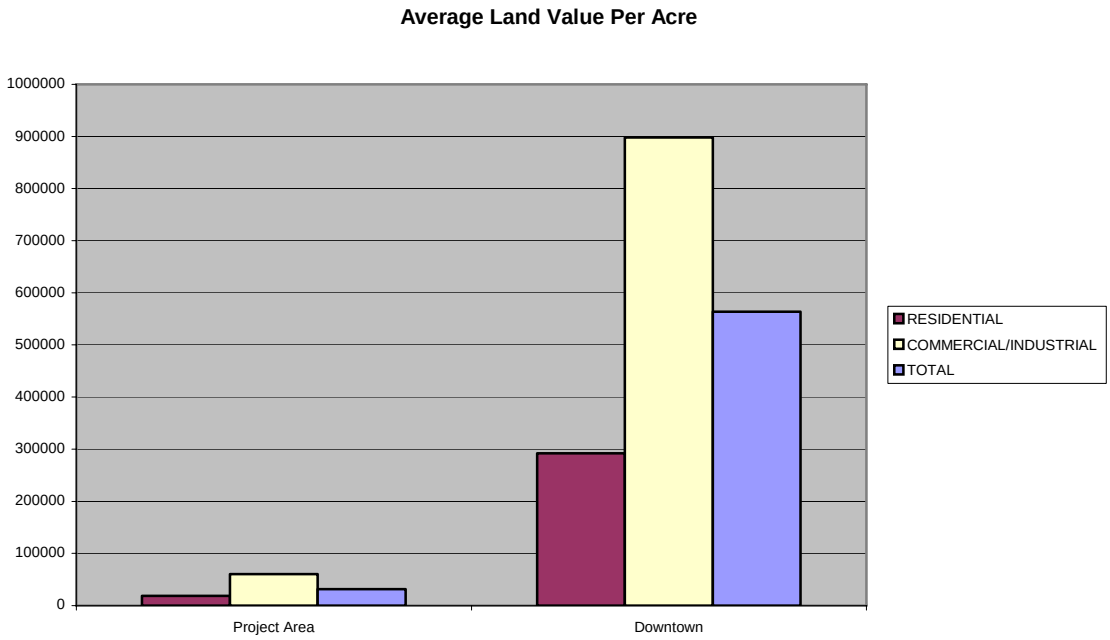


Chart 6


Average Land Value Per Acre
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
0
Project Area
Downtown
RESIDENTIAL
COMMERCIAL/INDUSTRIAL
TOTAL

As the table indicates, the project area has very similar average land values to other underutilized areas of the city such as Riverside and MLK. When contrasted with the aver age land values of the city, the total per acre average land value for the project area is about 5.6 percent that of downtown. Similarly, average residential values for the project area are 6.3 percent of the same values for downtown while average per acre commercial and industrial values for the project area are 6.7 percent that of downtown.

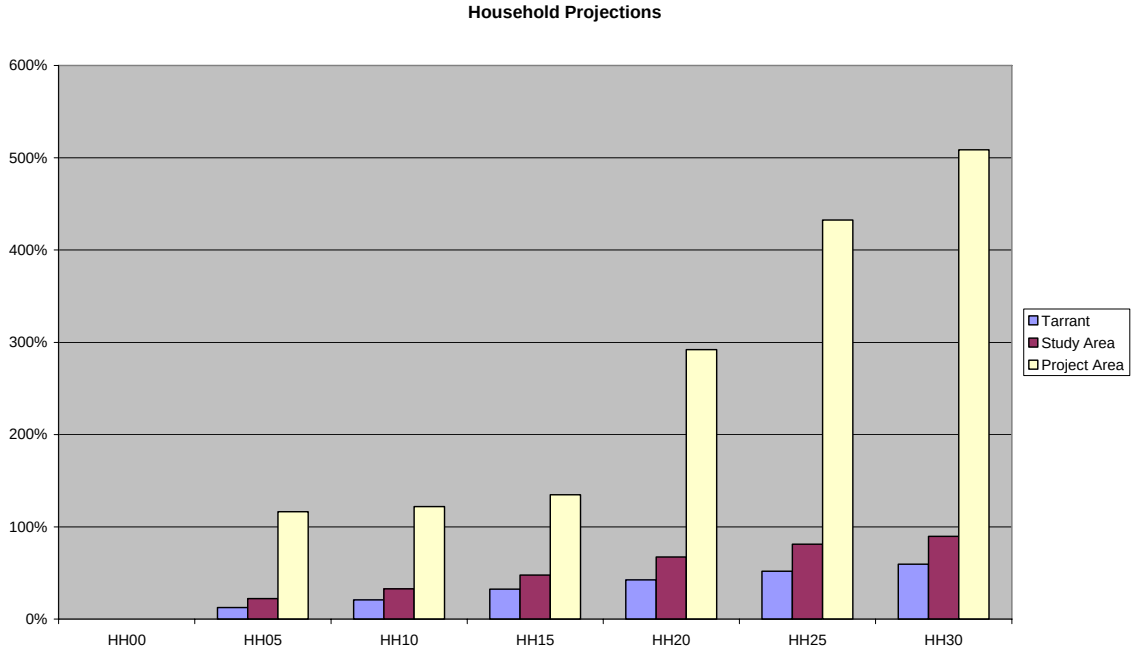
Projections (Future Without Project Conditions)

The following information is based on the North Central Texas Council of Governments' Demographic Forecast, which provides long-range, small-area household and employment projections for use in intra-regional infrastructure planning and resource allocations in the metropolitan area of North Central Texas. The Demographic Forecast is conducted by NCTCOG's Research and Information Services Department under review and oversight of the Demographic Methodologies Task Force. The Forecast has a 30-year time horizon, with 2000 as the base year and 2030 as the end year. Data applicable for a county level are used for Tarrant County, while data for the project area are disaggregated down to the traffic survey zone for those TSZ's that coincide with the project study area. This information includes projections for the number of households, household population, and employment. Additionally, these projections should be considered as what would occur in the absence of the Trinity River Vision.

Households

Chart 7 depicts the growth rate of households for Tarrant County, the study area, and the project area for the period from 2000 to 2030.

Chart 7

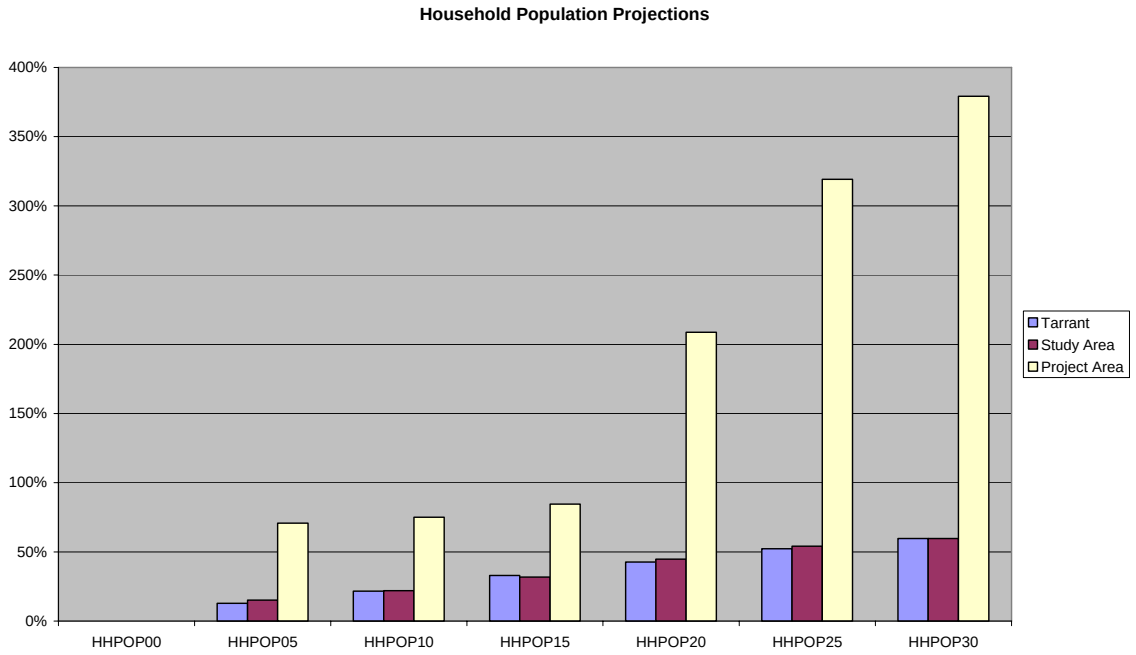


The number of households for Tarrant County is projected to grow by almost 60 percent between 2000 and 2030. By comparison, households for the study area are expected to grow by almost 90 percent and by over 500 percent for the project area.

Household Population

Household population for Tarrant County is projected to grow by almost 60 percent. Growth in household population for the study area is expected to grow at roughly the same rate while household population for the project area is expected to grow by 380 percent. The large percentage increases in the project area are due to the relatively low numbers of households themselves. Any increase in nominal terms will produce higher percentage rates of change. This is depicted in Chart 8.

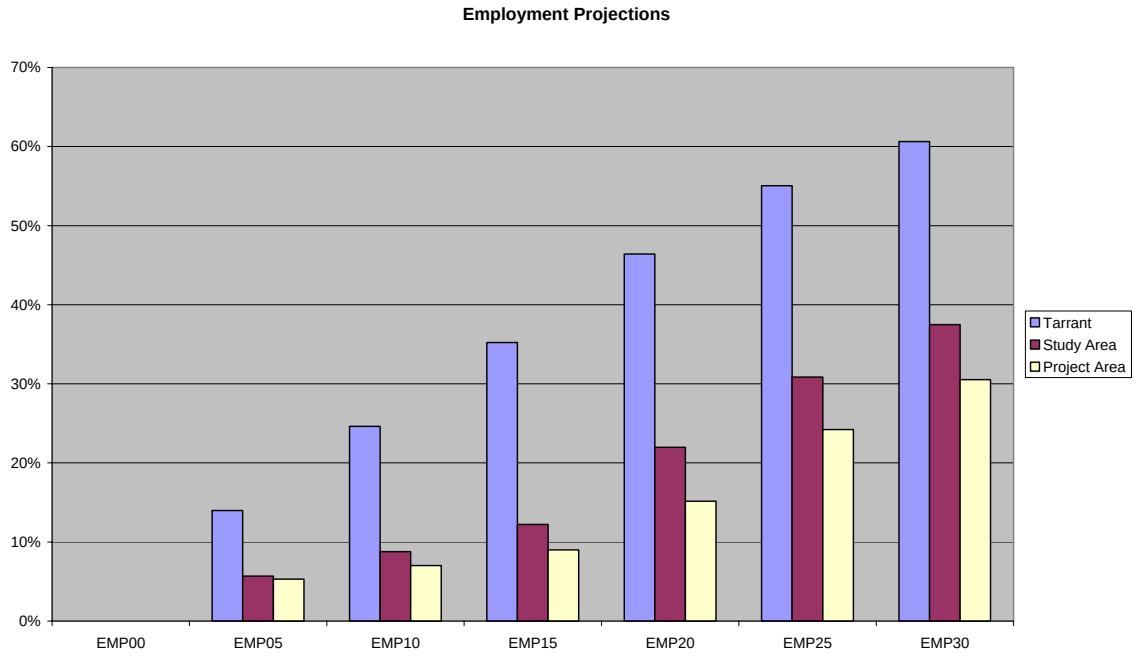
Chart 8



Employment

Employment for the period from 2000 to 2030 is expected to grow by almost 61 percent for Tarrant County. Employment for the study area is expected to grow by only 37.5 percent and employment will grow by 30.5 percent for the project area. Employment is projected to increase by much lower rates in the project area relative to household growth and household population. Employment projection rates are displayed in Chart 9.

Chart 9



With and Without Project Conditions

Impact of Construction Activities

The Corps contracted with Center for Economic Development and Research (CEDR) at the University of North Texas to conduct an analysis addressing the economic, development, and fiscal impacts of the project and its ability to encourage ancillary development in Tarrant County. CEDR's estimates are based on the IMPLAN economic input/output model developed by the Minnesota IMPLAN Group and track how spending flows through a regional economy.

The preliminary cost schedule calls for expenditures of $435 million including over $76 million for property acquisitions and $1.5 million for business relocations. Funds for acquisition and relocations were not used for impact assessment due to insufficient information on how these property transactions would contribute to any economic activity. The resulting $357 million construction expenditure was distributed beginning in 2005 and running through 2015. The economic and fiscal impacts of the construction related spending are depicted in Table 10. Additionally, Table 11 shows these impacts through the construction schedule.

Table 10
Cumulative Economic and Fiscal Construction Related Impacts
(Current $$)

Description	Impact

Total Economic Activity	$609,181,000
Total Wages, Salaries, Benefits	$230,184,000
Total Employment	6,100
Total Property Income	$55,406,000
State and Local Taxes	$16,020,000

Table 11
Economic and Fiscal Construction Related Impacts by Year of Budgeted Activity
(Current $$)

	2005	**2006**	**2007**	**2008**	**2009**	**2010**
Total Economic Activity	$13,006,379	$30,038,868	$77,026,630	$89,937,475	$71,282,601	$39,689,587
Labor Income	$4,914,566	$11,350,431	$29,105,139	$33,983,607	$26,934,711	$14,997,034
Employment	130	301	771	901	714	397
Property Income	$1,182,951	$2,732,084	$7,005,697	$8,179,959	$6,483,268	$3,609,832
State and Local Taxes	$342,037	$789,950	$2,025,616	$2,365,140	$1,874,562	$1,043,741
	2011	**2012**	**2013**	**2014**	**2015**	**Total**
Total Economic Activity	$47,705,980	$66,226,081	$77,623,723	$72,846,983	$23,796,693	$609,181,000
Labor Income	$18,026,093	$25,024,064	$29,330,756	$27,525,826	$8,991,774	$230,184,000
Employment	478	663	777	729	238	6,100
Property Income	$4,338,936	$6,023,369	$7,060,003	$6,625,551	$2,164,348	$55,406,000
State and Local Taxes	$1,254,553	$1,741,587	$2,041,318	$1,915,701	$625,796	$16,020,000

These tables show that the total economic activity generated by construction of the project totals more than $609 million and will employ 6,100 people over the course of the 10-year time horizon. Additionally, the project will generate over $230 million in new labor income, $55.4 million in property income (rents, royalties, corporate profits, and dividends), and over $16 million in state and local taxes.

Commercial and Residential Development Impacts

GideonToal identified 463 acres for residential and commercial development affected by the project. Optimal build out is projected to encompass 441 acres of residential, office, retail, support, and mixed use of which only half is expected to develop over the next 40 years. This will include 5.6 million square feet of medium and high-density residential, 4 million square feet of commercial including medium and high-density office, retail and restaurant uses.

The 40-year development period is expected to include $672 million in residential construction and $480 in commercial construction much of which will consist of mixed use with an average construction value of $120 per square foot. The resulting economic and fiscal impacts of this residential and commercial construction are depicted in Table 12. Also included, in Table 13 are the impacts of residential and commercial construction through the 40 year planning horizon.

Table 12
Cumulative Economic and Fiscal Residential and Commercial Related Impacts
(Current $$)

Description	Impact
Total Construction Spending	$1,151,999,000
Total Economic Activity	$2,073,903,000
Total Wages, Salaries, Benefits	$650,766,000
Total Employment	19,300
Total Property Income	$177,128,000
State and Local Taxes	$68,104,000

Table 13
Economic and Fiscal Residential and Commercial Construction Related Impacts
Through the 40 year Planning Horizon
(Current $$)

	Years 0-5	Years 6-10	Years 11-15	Years 16-20	Years 21-25
Total Economic Activity	$207,390,298	$103,695,149	$518,475,746	$207,390,298	$207,390,298
Labor Income	$65,076,570	$32,538,285	$162,691,425	$65,076,570	$65,076,570
Employment	1,933	967	4,833	1,933	1,933
Property Income	$17,712,791	$8,856,396	$44,281,978	$17,712,791	$17,712,791
State and Local Taxes	$6,810,420	$3,405,210	$17,026,049	$6,810,420	$6,810,420

	Years 26-30	Years 31-35	Years 36-40	Total
Total Economic Activity	$311,085,448	$207,390,298	$311,085,448	$2,073,903,000
Labor Income	$97,614,855	$65,076,570	$97,614,855	$650,766,000
Employment	2,900	1,933	2,900	19,300
Property Income	$26,569,187	$17,712,791	$26,569,187	$177,128,000
State and Local Taxes	$10,215,629	$6,810,420	$10,215,629	$68,104,000

These tables show that the total economic activity generated by the residential and commercial development will total more than $2 billion and employ over 19,000 over the 40 year planning horizon. Residential and commercial construction will also generate over $177 million in property income and $68 million in state and local taxes.

Recurring Business Impacts

Business activities associated with the commercial development in the area will generate substantial economic activity as companies occupy office space, retailers open stores, and diners frequent restaurants. The impacts of these associated business activities are displayed in Table 14.

Table 14
Cumulative Recurring Economic and Fiscal Business Activities Impacts
(Current $$)

Description	Impact
Direct Business Activity	$957,855,000
Total Economic Activity	$1,615,610,000
Total Wages, Salaries, Benefits	$642,065,000
Total Employment	16,359
Total Property Income	$150,530,000
State and Local Taxes	$47,635,000

Business located in the TRV will generate almost $958 million in direct business activity per year at the 40-year development stage and will boost total economic activity by more than $1.6 billion per year. Businesses will employ over 16,000 per year with total wages, salaries, and benefits of $642 million per year. Additionally, businesses will generate $150.5 million in property income and $47.6 million in state and local taxes.

TRV as an Economic Development Engine

In assessing how the TRV will spur economic development, CEDR took a more qualitative approach utilizing interviews with developers, business groups, and city officials. A consistent theme among those interviewed is that the TRV project will dramatically alter the development and redevelopment path for the downtown and near downtown vicinity although differences of opinion exist as to how this development will manifest itself. Some concern exists for example, that the TRV will entice development away from other parts of the city although all agree that the overall net gains will be positive. Some suggest that the proposed town lake, while esthetically pleasing, may be of little real value in attracting new development. Others, however, see it as a key recreational and environmental amenity that will positively impact development and property values. Additionally, the project-planning phase is being credited with sparking significant potential development.

The primary challenge for the TRV, as seen by those interviewed, is to maintain a consistent vision for development standards while taking into account changes in the real estate market and the political environment of the city. Cooperation among developers, public officials, business, and community groups will be required which has already been demonstrated considering the representatives currently involved in the project.

Developers and business organizations expressed a desire to continue and possibly expand existing incentive programs for prospective developers. Officials with the City believe the project itself, along with the associated infrastructure, should provide sufficient incentive to attract the expected commercial, residential, and mixed-use development. Additionally, consideration should be given to those businesses having to relocate to accommodate the project.

Future Without Project Conditions

In the absence of the Trinity River Vision project, some development would occur in the area regardless. Examples of projects not directly spurred by the TRV include "The Bluffs" housing and mixed use development and the redevelopment of LaGrave Field. These projects, while benefiting from the TRV, were planned and executed without substantial consideration for the TRV. Table 15 displays the recurring without project impacts in the absence of the TRV project.

Table 15
Future Without Project Conditions at 40-Year Development
(Current $$)

Description	Construction Impacts	Recurring Impacts of Business Operations
Direct Construction Costs/ Business Activity	$354,816,000	$295,019,000
Total Economic Activity	$638,762,000	$497,608,000
Total Wages, Salaries, Benefits	$200,436,000	$197,756,000
Total Employment	5,940	5,040
Total Property Income	$54,555,000	$46,363,000
State and Local Taxes	$20,976,000	$14,672,000

The development that would occur in the absence of the TRV would generate $638.8 million in total economic activity from construction impacts of projects not associated with the TRV and $497.6 million in total economic activity from recurring business operations at the 40-year planning horizon. Total wages, salaries, and benefits will total $200.4 million for construction impacts and $197.8 million for recurring business, employing 5,940 and 5,040 per year respectively. Total property income for construction impacts will be $55.6 million per year and $46.4 million per year for recurring businesses. State and local governments will bring in almost $21 million per year in taxes from construction projects and $14.7 million in taxes from recurring business in the absence of the TRV.

With and Without Project Comparison

Table 16 compares the total with project economic and fiscal impacts with the without project impacts. As the table indicates, the total economic impact of the project is almost $4.3 billion. This compares to a without project total economic impact of just over $1.1 billion. This represents a difference in almost $3.2 billion in total economic activity. Total employment for the with project condition is 41,759 while the without project employment is 10,980, almost 31,000 fewer employed. Additionally, state and local taxes collected from the with project condition is $131.8 million and a without project tax collection of $35.6 million, a difference of $96.1 million.

Table 16
Comparison of With and Without Project Economic and Fiscal Impacts

(Current $$)

	Bypass Construction	**Residential and Commercial Construction**	**Recurring Business**	**Total**	**Without Project**	**Difference**
Description	Impact	Impact	Impact	Impact	Impact	Impact
Total Construction Spending/Direct Business Activity	$357,000,000	$1,151,999,000	$957,855,000	$2,466,854,000	$649,835,000	$1,817,019,000
Total Economic Activity	$609,181,000	$2,073,903,000	$1,615,610,000	$4,298,694,000	$1,136,370,000	$3,162,324,000
Total Wages, Salaries, Benefits	$230,184,000	$650,766,000	$642,065,000	$1,523,015,000	$398,192,000	$1,124,823,000
Total Employment	6,100	19,300	16,359	41,759	10,980	30,779
Total Property Income	$55,406,000	$177,128,000	$150,530,000	$383,064,000	$100,918,000	$282,146,000
State and Local Taxes	$16,020,000	$68,104,000	$47,635,000	$131,759,000	$35,648,000	$96,111,000

Project Transportation and Vehicular Traffic Conditions

A transportation plan conducted by Bunt and Associates notes that because private cars and trucks dominate travel in Fort Worth, the major element of the transportation analysis rests on the street network. Due to the proximity of the project to downtown, opportunities exist to promote other forms of transportation.

Currently, access to most of the 700 acres of the Central City project is through North Main Street, which connects the project with downtown. The issue to overcome is the absence of an east-west connection. Alleviating this absence can be accomplished by extending White Settlement Road, with its' relatively light traffic, across Henderson Street and through the project area and connecting to Main Street. This will provide access to the project area from the west. To provide access from the northeast, a proposed new roadway would extend down from East Northside Drive intersecting Samuels Avenue and terminating into North Main Street.

Public transportation accounts for less than five percent of peak period passenger travel with conventional buses comprising the primary mode of public transportation. Transportation planners have considered the introduction of higher order service such as light rail with service going north out of downtown on North Main being identified as a potential route. The light rail project proposed by the Fort Worth Transportation Authority is currently on hold however. There are no discussions regarding the potential timing of a light rail streetcar component. The road network concept proposed by Bunt and Associates provides for the expected bus transit requirements.

The potential for other forms of transportation exist due to the proximity of almost 3,800 residential housing units located within walking distance of downtown. The plan includes separated pedestrian bridges spanning across the river to downtown to complement the

vehicular bridges. Residents may walk to and from the downtown area or bike across the pedestrian bridges, which are linked to a network of pedestrian/bike paths through the area.

Potential traffic loads were analyzed to assess whether the proposed infrastructure for the development of the Trinity Uptown area was adequate. Analysis of site-generated traffic was based on assumptions regarding the type and scale of land use that may develop while background traffic on the regional road network was estimated using forecasts provided by the North Central Texas Council of Governments (NCTCOG) transportation model.

For transportation planning purposes, the transportation study uses a 20-year planning horizon as a means of testing the adequacy of the transportation plan. The potential gross floor area generated by development for this 20-year horizon is estimated at 5,440,070 square feet. This compares to an estimated 15,402,380 square feet of development potential based on a 40-year horizon outlined in the Trinity River Vision master plan.

Using forecasts of traffic volumes provided by the City of Fort Worth on the regional road network, the study identified the expected levels of external background traffic on the major streets passing through the planning area. In 2025, Henderson Street is expected to carry the highest traffic volume with 34,450 vehicles per day, an increase of 51 percent from 1999. North Main Street is expected to carry 29,880 vehicles in 2025, an increase of 92 percent. White Settlement Road is expected to carry 18,830, an increase of 59 percent.

In assessing the infrastructure requirements, the transportation study found that, based on the forecast daily volumes to the year 2025, the basic roadway cross-section on North Main Street through the Trinity Uptown area should be a four-lane arterial to maintain an acceptable level of service. Henderson Street will require a six-lane cross-section due to higher traffic volumes. White Settlement Road will function at acceptable levels with a basic cross-section of four lanes undivided from west of Henderson to Main Street.

The transportation study assessed the intersectional operations of the major signalized intersections within the Trinity Uptown road network for the 2025 time horizon based on the forecast PM peak hour volumes. The operations analysis indicates that the intersection on North Main Street at Road B and Road A will operate satisfactorily during the highest traffic volume period. White Settlement Road at both Main Street and Henderson Street, the intersections are expected to operate within the available capacity but at a lower level of service.

The study points out that while the proposed road network is sufficient to accommodate the 2025 forecast traffic, it is evident that the Trinity Uptown area will require additional transportation infrastructure and/or changes in travel characteristics. Since the build out could be as long as 50 years, traffic conditions beyond 2025 may not be reasonably estimated. The study does suggest several measures that can be planned for now that will mitigate future traffic conditions. These include adding capacity by constructing an additional river crossing connecting to the regional road system, possibly extending White Settlement Road, which would climb the bluff and connect to Belknap. This would provide an alternative route for traffic to and from the south and east, relieving downtown and Main Street. Another alternative is to widen Main Street to six lanes. Drawbacks to

this plan include the expense of replacing the existing bridge from downtown and the fact that expansion of the bridge would work against the urban planning objectives of the Trinity Uptown plan. Finally, provision of rapid transit in the North Main Street corridor is another potential option.

NCTCOG forecasts through traffic in the Henderson and Main Street corridors out of downtown to grow by more than 60 percent within the next 20 years. Continued growth beyond that time frame at similar rates is not sustainable and will require a major intervention such as rapid transit.

Effected Populations

In accordance with Executive Order 12898, "*Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*" in assessing the potential impacts to minority populations within the study area, data indicate that 25 of the 40 2000 Census blocks within the study area have minority populations over 50 percent. Of the 25 census blocks, 20 contain Hispanic populations of more than 50 percent while the remaining five have African American populations of more than 50 percent. Table 17 identifies these census blocks with their associated racial composition.

Table 17
Minority Populations by Census Blocks

Census Block	White	Hispanic	Black	Am. Indian	Asian	Haw. or PI	Other	2 or More
1001.024	29%	**67%**	1%	0%	3%	0%	0%	0%
1002.025	16%	**82%**	0%	0%	1%	0%	0%	0%
1003.005	9%	**84%**	7%	0%	0%	0%	0%	0%
1004.001	7%	**92%**	0%	0%	0%	0%	0%	2%
1004.002	15%	**84%**	0%	1%	0%	0%	0%	0%
1004.003	11%	**87%**	0%	0%	2%	0%	0%	0%
1004.004	4%	**95%**	0%	0%	2%	0%	0%	0%
1004.005	5%	**92%**	4%	0%	0%	0%	0%	0%
1004.006	6%	**94%**	0%	0%	0%	0%	0%	0%
1008.001	7%	**92%**	0%	0%	0%	0%	0%	1%
1008.002	5%	**94%**	1%	0%	0%	1%	0%	1%
1008.003	10%	**83%**	7%	0%	0%	0%	0%	0%
1008.004	9%	**89%**	0%	0%	0%	0%	0%	2%
1008.005	7%	**93%**	0%	0%	0%	0%	0%	0%
1008.006	11%	**85%**	3%	0%	0%	0%	0%	0%
1009.001	5%	**95%**	0%	0%	0%	0%	0%	0%
1009.002	0%	**100%**	0%	0%	0%	0%	0%	0%
1009.003	1%	**99%**	0%	0%	0%	0%	0%	0%
1010.001	12%	**88%**	0%	0%	0%	0%	0%	0%

1011.002	5%	26%	**67%**	0%	2%	0%	0%	0%
1012.025	4%	33%	**61%**	1%	0%	1%	0%	1%
1017.001	0%	31%	**69%**	0%	0%	0%	0%	0%
1017.002	8%	11%	**72%**	10%	0%	0%	0%	0%
1017.003	22%	18%	**55%**	3%	1%	0%	0%	1%
1020.001	11%	**87%**	1%	0%	0%	1%	0%	0%

In assessing the existence of low-income populations for the study area, median household incomes for all 40 census blocks for the study area were examined. Based on a poverty threshold for a family size of three (considering that average number of persons per household for Tarrant County is 2.74) an income of $13,290 was used as comparison. Using this poverty threshold, four census blocks fall below this level, two of which are identified as minority census blocks as well. When threshold levels are adjusted for census block specific household size, three of the four census blocks remain below the poverty level. Census block 1021.006 with an average household size of two translates into a poverty threshold of $10,869. With a median household income of $12,035, it is $1,166 above this threshold. Table 18 depicts the four census blocks.

Table 18
Low Income Populations by Census Blocks

Census Blocks	Median Household Income	Poverty Threshold for Family of Three	$ Below Poverty Threshold
1010.002	$7,683	$13,290	-$5,607
1017.002	$6,382	$13,290	-$6,908
1017.003	$7,976	$13,290	-$5,314
1021.006	$12,035	$13,290	-$1,255

Five of the minority population census blocks identified in Table 17 and one of the low-income census blocks from Table 18 intersect the parcels identified by the Tarrant Regional Water District as necessary acquisitions for the bypass channel. The minority census blocks include 1008.003, 1008.006, 1009.001, 1010.001, and 1020.001. The low-income census block is identified as 1010.002. A relocation assessment contracted by the Water District (discussed next) did not identify any residential properties among those that could be potentially dislocated. Additionally, no significant concentrations of residential properties exist within an appreciable distance of the bypass channel footprint impeding any sort of community cohesion.

Stated previously, the project area intersects three census blocks within the center of the study area. These census blocks include 1009.001and 1020.001, which have been identified as having predominantly Hispanic populations, and 1010.002 which was identified as being among the low income census blocks. As mentioned earlier, the demographic characteristics captured within these two Hispanic census blocks are from neighborhoods that lie outside the project area delineation. These include the Linwood

Addition for census block 1020.001 and the M.G. Ellis, North Fort Worth, and Googins Additions for census block 1009.001. The low income parcel, 1010.002 reflects the demographic characteristics of the Ripley Arnold housing project which has since been demolished and replaced with Radio Shack's new corporate headquarters and is also outside the project area delineation. Only three parcels zoned as residential are located within the project area, none of which are identified as facing potential relocation.

Displaced Populations and Businesses

The Tarrant Regional Water District contracted Pinnacle Consulting Management Group, Inc. to assess the relocations needs of those populations and businesses potentially affected by the project. Pinnacle identified 56 landlord displacements, 93 business displacements, 220 storage unit displacements, and an indeterminable number of street bazaar vendors. Residential displacements are confined to four long-term residents of an effected motel, and one business that also serves as a permanent place of residence.

Minority and Female Owned Businesses

To aid in the identification of minority and female owned businesses, surveys were conducted by Pinnacle Consulting Management Group to assess business relocation as a result of construction of the bypass channel and to help determine the racial and gender makeup of business owners and employees. Approximately 200 entities, consisting of landlords and businesses, were surveyed representing those potentially facing displacement. 93 businesses were identified as facing relocation. 17 businesses responded that they were female and/or minority owned representing 18 percent of the potentially dislocated businesses. This compares to 41 percent of businesses in Tarrant County that are female or minority owned. The percentage of potentially impacted businesses could be higher due to businesses not responding to this particular question. Additionally, of the 56 landlord displacements, 18 identify themselves as being female and/or minority owned representing 32 percent of those landlords potentially facing displacement. Those businesses and landlords facing potential displacement do not appear to disproportionately impact those owned by minority and/or females.

Business owners were also asked about the minority composition of their employees. Of those businesses responding to the question, 21 reported having significant minority and /or female composition—at least half of their employees are minority and/or female. These 21 businesses represent approximately 23 percent of the dislocated businesses. Like female and minority owned businesses, the percentage of potentially impacted businesses with significant minority/female compositions could be higher due to businesses not responding to this particular question.

Some of the potentially dislocated businesses may have more difficulty in relocating then others due to: 1) substantial investments in plant and equipment, or those with outdated equipment and equipment that is difficult to move; 2) those that are subject to State and Federal regulations and permitting; 3) those that handle controlled substances such as explosives; and 4) those that need access to transportation networks. Of the

approximately 93 businesses potentially dislocated businesses, several have been identified as facing potential difficulties in having to relocate. Of those, all require some sort of permitting process in order to relocate. However, all these businesses should have sufficient lead time to secure the permitting necessary to relocate, minimizing their operational transition. Three businesses have equipment that will be difficult to relocate, two of which are considered historically underutilized businesses (HUB). One of these businesses will most likely move its operations to another facility, and another has indicated it will relocate within the area since it is a defense contractor with contracts in the area. Aside from the permitting issues, it is not anticipated that these businesses will face any other significant impediments to relocation; therefore, impacts to employment should not be significant or disproportionate.

While the relocations in and of themselves do pose a significant hardship for those affected, it does not appear that minority owned business, or those with significant minority compositions are being disproportionately targeted when considering the overall racial composition of the project study area. Consideration is also given to those businesses that may face significant obstacles to relocate due to permitting issues and access to transportation networks. The number of businesses that fall into this category are relatively small. Additionally, those facing difficulty in relocating is also relatively small.

Scoping and Public Involvement

A Notice of Public Scoping Meeting was mailed to all known interested parties on October 11, 2002. This notice outlined the study authority, major projects being proposed by USACE within the study area, and the date and location of the public scoping meeting. USACE also issued a news release on October 24, 2002, announcing the scoping meeting and the opportunity for citizens to offer comments, suggestions or any other information that might benefit the USACE in preparing the Draft EIS. The scoping meeting was held on October 29, 2002 with approximately 50 individuals attending. A brief description of the overall study and schedule for the NEPA process was discussed and members of the public were allowed to present statements regarding their concerns on the feasibility study. See Appendix K for a complete summary of all public meetings and involvement.

From April to June 2001, ten public meetings were held with neighborhood groups and land owners, including those neighborhood groups within close proximity to the project area, with subsequent rounds of public meetings occurring in January 2002 and between November 2002 and June 2004. In December 2004, the public exhibit of Trinity Uptown opened following the adoption of the TRV Master Plan by the TRWD Board, the Streams and Valleys Board, the City of Fort Worth and Tarrant County in 2003. Meetings including neighborhood groups close to the project area were conducted in the Rose Marine Theater in the heart of the traditionally Hispanic Northside of Fort Worth and in the Botanic Gardens. Comments from neighborhood groups reflect concerns about maintaining the historical integrity of their neighborhoods, accessibility to project amenities from neighborhoods such as Oakhurst and Riverside as well as those

neighborhoods with limited amounts of park space. Additional comments regard the availability of mass transit to relieve anticipated traffic congestion in the area, and concern regarding the potential buying out and relocation of businesses.

Additionally, during data collection for the socioeconomic assessment, a meeting was held with the president of the Hispanic Chamber of Commerce to help determine what impacts, both positive and negative, the Hispanic community may expect and how the Chamber may be used to disseminate information. Discussions included construction and bidding opportunities for Hispanic businesses and public outreach to the community through Spanish language television and radio.

Overview

The project area, as defined by the revised impact area, consists of an area whose population is predominantly Hispanic. Although there has been improvement between the 1990 and 2000 census, a larger percentage of residents in the project area have lower levels of income and educational attainment compared relative to Tarrant County as a whole. Unemployment for the project area is more than twice that of the County and owner occupied housing is roughly 80 percent compared to the County. Additionally, the poverty rate is more than twice as high in the project area as it is in Tarrant County. Coinciding with the appearance of an area that may be considered economically depressed, land values for the project area compares similarly with other areas of the city considered blighted such as Riverside and MLK. Comparing the land values with those of the downtown area, the contrast is enormous, especially in light of the proximity of the two areas.

The development potential for the project area, however, due primarily to relatively low land values and the availability of developable land is significant. Total economic activity generated from the bypass channel construction, residential and commercial construction, and recurring business is estimated at almost $4.3 billion with employment of nearly 42,000. This is in addition to the $1.1 billion in total economic activity and 11,000 in total employment that would occur in the absence of the project. State and local taxes generated by the project are 270 percent higher than what would be generated if the project was not constructed.

The project will have an impact on approximately 200 businesses. While a number of these businesses are owned by minorities or have significant minority employee composition, it is not believed that the project disproportionately affects such businesses. The greater concern may be those business that face significant barriers to relocate due to plant and equipment issues as well as permitting and access to transportation networks. The availability and suitability of such facilities may have an adverse impact on those businesses' ability to continue to generate income and provide employment.

Finally, the project will require improvements in transportation infrastructure to accommodate the increase in commercial and residential development. The transportation study suggests that Henderson Street be increased to six lanes while North Main and

White Settlement should adequately handle anticipated traffic levels with four lanes each. The project also provides opportunities for the development of public transportation such as light rail and for the development of pedestrian and bicycle paths. Transportation planning beyond the 20 year planning horizon will need to utilize a variety of transportation modes to adequately service the project area.