APPENDICES

TABLE OF CONTENTS

APPENDIX A – GLOSSARY

APPENDIX B – STATISTICAL SUMMARY

INTRODUCTION

INFORMATIONAL SOURCES

DEMOGRAPHICS
  POPULATION
  NUMBER OF HOUSEHOLDS
  HOUSEHOLD SIZE
  AGE DISTRIBUTION

HOUSING ACTIVITY
  HOUSING UNITS

DEVELOPMENT ACTIVITY
  BUILDING PERMIT VALUES

WORK FORCE CHARACTERISTICS
  LOCAL EMPLOYMENT
  REGIONAL SHARE OF EMPLOYMENT
  HOUSEHOLD INCOME DISTRIBUTION

TABLES
  TABLE 1: 1960-2020 POPULATION, HOUSEHOLDS AND PERSONS/HOUSEHOLD TOTALS AND PROJECTIONS
  TABLE 2: 1988-2020 FORECAST AGE GROUP DISTRIBUTION
  TABLE 3: 1983-1987 TOTAL HOUSING UNITS
  TABLE 4: 1980-1987 BUILDING PERMIT VALUES
  TABLE 5: 1983-1987 SINGLE-FAMILY UNIT PERMITS BY SQUARE FEET
  TABLE 6: 1980-2000 FORECAST EMPLOYMENT BY SECTOR
  TABLE 7: 1980-2000 ABSOLUTE CHANGE IN EMPLOYMENT BY SECTOR
  TABLE 8: 1980-2000 REGIONAL SHARE OF EMPLOYMENT
  TABLE 9: 1988-2020 FORECAST HOUSEHOLD INCOME DISTRIBUTION
PLANO COMPREHENSIVE PLAN
APPENDIX A - GLOSSARY

Active Recreational Uses - Park facilities designed for vigorous physical activities including ball fields, basketball courts, tennis courts, swimming pools, etc.

Adequate Public Facilities - The provision of essential services including water, sewer, drainage and thoroughfares at the time of development, and the provision of other facilities in a timely manner. Provision of adequate public facilities is a major factor in review of zoning cases and site plans.

Apartment - Rental unit in a multi-family structure which has more than two units. Apartments are not individually owned.

Arterial Streets - Major thoroughfares in the City of Plano. Arterial streets include those classified as Type "C" (six-lane divided) and higher (AA, T, A, B+, B).

Assessed Valuation - The value of a city's taxable private property as determined by the local appraisal district.

Athletic Facilities - Facilities designed to accommodate active recreational activities including league play and tournaments. Such facilities may be equipped with lights for night games.

Automated Signal System - A system that would allow the Fire Department to control traffic signals along the route of vehicles traveling to an emergency or to a hospital.

Base Flood Elevation (BFE) - The elevation (above sea level) that storm water is expected to reach during a "100 year flood".

Basic Employment - Employment which involves the production of goods generally intended for markets beyond the local area. For the purpose of the Comprehensive Plan, all industrial employment is considered basic.

Bedroom-Based Density Standard - Controlling total density of an apartment project through limits on the number of bedrooms per acre. An all one-bedroom complex would be allowed more units per acre than an all three-bedroom complex in the same zoning district. This approach seeks to control the "people density" of an apartment complex.

Bedroom Community - A community predominantly composed of single-family homes which provides a place of residence for those who work in the central city of a metropolitan area.

Bike Path, Bike Route - See Class I Bike Path, or Class III Bike Route.

Bio-Technology - The application of biological science to industrial uses and processes.

Bond Election - A vote of the citizenry to authorize the issuance of bonds for specified capital improvements.

Buffers - The use of various treatments such as walls, berms, hedges, trees, or a combination of these to shield, screen or provide a transition between uses or between a use and a thoroughfare.
Build-Out - The projected point in
time at which 90% of the City’s res-
idential land area will be devel-
oped, and remaining activity will
take the form of infill development
or redevelopment. Non-residential
development activity is much more
difficult to project, but it is an-
ticipated that a significant amount
of non-residential properties will
remain undeveloped for several years
after build-out. For purposes of
the Comprehensive Plan, the year
2020 represents the approximate time
of build-out, and the capacities of
Plano’s infrastructure are based on
a 2020 design year.

Business Recruitment and Assistance
Program - A program designed to
attract new businesses to the com-
unity, retain existing firms, and
accommodate their expansion plans.

Campus Office Development - A style
of development characterized by low-
and mid-rise buildings in a highly
landscaped setting similar to that
of many college campuses.

Capital Improvements Program (CIP) -
A plan which schedules needed land
acquisition, facility construction,
and improvements by a city. The
plan is generally prepared for a
five-year time frame, and updated
annually. The immediate one-year
program becomes a city’s capital
budget for that fiscal year. Types
of projects commonly included in a
CIP are water and sewer lines, thor-
oughfares, drainage improvements,
libraries, police and fire stations,
parks, recreation areas, and other
related public facilities.

Circulation Plan - A plan prepared
at the time of zoning which shows
general building locations, develop-
ment intensities, and access in or-
der to demonstrate that a parcel is
suitable for the proposed use.

Circulation plans are useful in
planning median cuts and turn lanes,
and in coordinating development with
adjacent properties. They replace
Concept Plans which were required
under the old Zoning Ordinance.

Citizens’ Fire Protection Master
Planning Committee - A committee
appointed by the City Council to as-
sist staff in the preparation of the
Master Plan for Fire Protection.

City Council - The City’s primary
policy-making body, composed of the
Mayor and seven at-large elected
members. The City Council has final
authority on zoning cases and most
development requests, and also acts
on the resolution which adopts the
Comprehensive Plan.

Class I Bike Path - A paved trail
for bicycling that is located within
one of the City’s linkage parks or,
if placed along a thoroughfare, is
physically separated from the main
roadway by a parkway or other approp-
riate barrier.

Class III Bike Route - A part of
Plano’s bikeway system that is in-
cluded within the actual street
paving and is designated by special
signage. On identified higher vol-
ume roadways additional paving width
is required to accommodate bicycle
and vehicular traffic.

Cluster Housing - A subdivision de-
sign using reduced lot sizes and
setbacks to group homes closer to-
gether while providing for areas of
common open space and recreation.

Collector Streets - Includes undi-
vided streets narrower than arteri-
als, but wider than standard resi-
dential streets. These are roadways
which collect traffic from within
residential neighborhoods and dis-
tribute it onto the major thorough-
fares.
Collin County Community College District (CCCCD) - The CCCCCD was established by the voters in 1985. It currently operates out of a temporary campus in McKinney, and other facilities in Plano and Collin County. A permanent campus is under construction in east Plano, and is scheduled to open in the fall of 1988. Additional campuses are planned in west Plano and McKinney.

Community Development Block Grants (CDBG) - A program of the Federal government under which funds are given for community improvement projects in targeted low and moderate income areas.

Community Parks - Major parks designed to accommodate passive and active recreational needs of several neighborhoods. They are often combined with athletic facilities to provide a wide range of activities that cannot be offered at the neighborhood level.

Comprehensive Bikeway Plan - A plan, adopted 1985, which describes the City's proposed bikeway network.

Comprehensive Plan - An adopted city document which guides the decision making process on matters relating to the long term growth of a community. Sometimes referred to as a "Master Plan" or a "General Plan", the Comprehensive Plan should address the various functional elements that impact a city's physical development, and should cover a twenty- to thirty-year time frame.

Concept Plan - A schematic plan showing buildings, parking and vehicular circulation. Concept plans are useful in planning median cuts and turn lanes, and in coordinating development with adjacent properties. They have been replaced under the new Zoning Ordinance by Circulation Plans.

Condominium - Refers to a type of ownership of real property in which the interior of the unit is owned by an individual, but the exterior of the unit and all land is owned and managed in common with other residents of the homeowners or condominium association. Condominium projects may be comprised of townhouses, stacked multi-family units, duplexes, etc.

Conservation - Preventing or diminishing the effects of deterioration of commercial and residential areas. New uses and infill developments should not negatively impact the character of existing neighborhoods.

Corridor - Heavily traveled linkage and the development along either side that is integrally associated with its identity. Corridors are often created by regional thoroughfares, and provide an excellent opportunity to create a positive visual image of a community.

Cost-Sharing Policies - The City is responsible for reimbursing developers for a portion of improvements that are designed to serve the public as a whole or a large section of the City, and not just future users or residents of a particular development. The City’s share is generally based on a predetermined ratio of "oversize" participation (see Oversize Costs).

Crime Watch Areas - Designated neighborhoods or sections of the City where residents have been organized by the Police Department to monitor potential criminal activity within that area, distribute information on known criminal activity, and improve individual security and crime prevention.
Culvert - A structure that channels storm water under a roadway. Culverts are usually made of reinforced concrete and are generally used for small streams and channels.

Dallas Area Rapid Transit (DART) - The regional public transportation provider for Dallas and surrounding area suburbs, including Plano. DART operates cross-town bus service in Plano, and express bus service to downtown Dallas. DART will also construct and operate a light rail system connecting downtown Plano with Dallas.

Density - The average number of dwelling units per acre in a development. For the purposes of the Comprehensive Plan, densities are categorized as follows:

- Low Density - less than five units per acre
- Medium Density - five to twelve units per acre
- High Density - greater than twelve units per acre

(Also see Bedroom-Based Density Standard.)

"Development Policy Issue Paper" (1984) - An analysis prepared by the Planning Department for the City Council which identified key planning and development issues facing the City, and recommended a program for addressing them.

Dial-A-Ride - Demand responsive transit service where vans or taxis generally provide door-to-door service for patrons who call in for the service. Usually, the service is limited to elderly and handicapped riders.

Diamond Intersection - An intersection constructed to accommodate a future grade separated interchange by placing the main lanes of the higher volume roadway in the location of the future on- and off-ramps. The intent of this design is to leave space for the future overpass, and to minimize construction costs and time. A diamond intersection creates two points of connection between the two roadways and requires two sets of traffic signals, resulting in less efficient traffic flow while the temporary intersection is in place.

Downtown Core - A 300-400 acre area in the center of the Legacy (EDS) development that is planned for intense high-rise office and retail development similar to that of the downtown area of a major city.

Drainageway - A natural or man-made channel which carries storm water.

Durable Goods - Products which will last over a long time period such as equipment, machinery or cars.

Economic Development Information System - A coordinated data base which will assist economic development planning and recruitment programs.

Edge - An identifiable design break between places or different types of development (see Landscaped Edge).

Elementary School - In PISD, a school serving kindergarten (K) through the fifth grade (approximate ages 5 through 10).

Emergency Medical Services (EMS) - Plano's EMS system provides on-scene treatment and stabilization to victims of severe medical emergencies (including accidents, heart attacks, strokes, etc.) administered by highly trained personnel on Para-med Engine Companies. Pre-hospital care is directed by a physician at HCA Medical Center of Plano via radio, and is followed by transportation to the closest appropriate hospital emergency facility in a Fire Department Mobile Intensive Care Unit (MICU).
Employment Base - The actual location and number of employees in a geographical area. This base includes employees who work in Plano, but do not necessarily reside in Plano.

Entryway - An identifiable characteristic or feature that establishes a sense of arrival into a community or place.

Escarpment - Steeply sloped areas of exposed rock and/or soils.

Essential Public Facilities - See Adequate Public Facilities.

Expressways - Includes roadways with controlled or limited access which handle regional traffic movements. Expressways include those streets classified as Type "T", "AA" and "A". These roadways may be developed with or without frontage roads.

Extra-Territorial Jurisdiction (ETJ) - That area outside a city's limits within which it may exercise subdivision control, and within which no other jurisdiction may annex land without the city's permission. Boundaries of the extra-territorial jurisdiction are set by Texas law, generally being a radius extending from the existing city limits, and varying in distance based on the city's size.

Facade Easement - A right granted to or sold by the owner of a building to a city or private group as an incentive for property owners to upgrade or maintain the facade of their building in its historic character. The city or private group also has the power to approve or deny any alterations to the facade.

Fare Box Recovery Ratios - The amount of operating costs which are paid for by transit riders' fares. DART has established a 40% fare box recovery ratio, meaning that 60% of the operating costs of the transit system will have to come from other revenue sources.

Federal Emergency Management Administration (FEMA) - The governmental agency whose responsibilities include coordination of the National Flood Insurance Program. Residents of cities qualifying for the program may purchase flood insurance. FEMA works with local governments to ensure that development and redevelopment meets federal criteria.

Federal 503 Small Business Program - A program of the Small Business Administration which provides financial assistance and loans to new and expanding small businesses.

Fire Flow - The amount of water required to extinguish a fire in a particular building while providing adequate protection to adjacent properties.

Five-Year Service and Facility Plan - A plan prepared at the department level which identifies major facility construction and improvements, and new or expanded services the department needs or would like to undertake over a five-year period. These plans are an aid to Capital Improvements Programming and can serve as the basis for detailed yearly budget requests.

Flextime - Using staggered work hours to reduce traffic congestion in peak periods as well as to allow employees more flexibility in choosing their work hours.
Floodplain - That area of land lying below the Base Flood Elevation (see One Hundred Year Flood).

Floor Area Ratio (FAR) - A zoning regulation that limits the building floor area of a zoning district to a specific proportion of the lot size. For example, a 100,000 square foot site with a 1:1 FAR would allow a 100,000 square foot building, a 0.5:1 FAR would allow a 50,000 square foot building, and a 2:1 FAR would allow a 200,000 square foot building.

Focal Point - See Landmark.

Force Mains - Those pipes carrying effluent under pressure and against grade from a lift station back to gravity-flow trunk sewers.

Formsetting Elements - The critical components of a community's urban design which establish its image and identity. These elements typically include places, linkages, entryways, edges and streetscape fixtures.

Freeway - A limited access arterial roadway that is region serving, and characterized by on- and off-ramps at intervals of one mile or more.

Frontage Road - A roadway paralleling the main lanes of a major thoroughfare which serves facing lots without giving them direct access to the thoroughfare.

Full Life Cycle Community - A community which provides a range of housing opportunities to accommodate various age group and life-style needs.

Garden Home - See Patio Home.

Grade Separation - An interchange design in which two thoroughfares do not directly intersect one another.

Instead, one thoroughfare crosses over or under the other. Access between the two roadways is generally provided by connecting loops or service roads.

Gravity Trunk Sewers - The base lines of the sanitary sewer system (generally 12 inches or greater in diameter) which receive the flow of effluent from several branch lines serving residential subdivisions and commercial developments along it. A gravity system is not dependent on lift stations or other artificial means of forcing flow uphill.

Grid Pattern - A pattern of development where neighborhoods are composed of a uniform system of rectangular blocks and continuous streets with a minimal number of curves, cul-de-sacs, and off-sets.


Headway - The time lapse between the arrivals of transit vehicles such as buses or light rail trains. Headways are typically shorter in periods of high demand (5-20 minutes).

High School - In PISD, a school serving grades nine and ten (approximate ages 14 and 15). See also Senior High School.

Historic Landmark Committee (HLC) - The committee, appointed by the City Council, that is responsible for reviewing historic structure designations and for developing codes and ordinances devoted to historic preservation activities.
Historic Preservation Corporation - A proposed non-profit organization which would enable citizens and groups to give tax deductible contributions in support of preservation activities. The corporation would support preservation activities of the Historic Landmark Committee.

Homeowners Association - An organization formed by the residents of a particular neighborhood or subdivision to promote their best interests on matters relating to zoning, development, circulation, safety and the general welfare. In many instances, the establishment of a homeowners association is mandated by the deed and covenants of a subdivision to ensure long term maintenance of common areas and facilities.

Horizon Committee - A sixteen-member body composed of business, development and civic leaders that was established to review the City’s land use codes, ordinances and practices, and to prepare a new Comprehensive Plan. The committee completed its work in the Fall of 1986.

Housing and Property Maintenance Codes - Ordinances which establish minimum standards of maintenance for property. Such ordinances cover plumbing, wiring, roofing, structural integrity, property appearance, etc.

Impervious Surface - A surface covered by a building, pavement or other structure that prevents water from penetrating into the soil.

Incentive Contracts - Contracts for roadway improvements which, in addition to penalty clauses for finishing a project late, include additional funds for each day a project is completed ahead of schedule.

Industrial Revenue Bonds (IRB) - See Industrial Review Board.

Industrial Review Board - An agency charged with reviewing applications for tax-exempt industrial revenue bonds to assist desirable businesses in a community. The lower interest rate of the tax-exempt issue makes the locating companies' development costs lower. In Plano, the North Texas Industrial Development Board serves as the Industrial Review Board.

Infill Areas - Undeveloped land areas surrounded by existing developed land.

Infiltration/Inflow - The penetration of water into the sanitary sewer system through damaged or defective pipes and joints, or the undetected connection of storm drains into sanitary sewers.

Infrastructure - See Public Infrastructure.

Inlet - An opening into the storm sewer system, typically located along the outside curb of a street.

Interceptors - Large lines located at or near the end of a sanitary sewer system which receive effluent from several collection lines.

Interchange - The access connection between two thoroughfares. Interchange typically refers to a grade separated condition in which one roadway crosses over another and access is provided by ramps and/or frontage roads to avoid signalizing the main lanes of the more heavily traveled roadway.

Joint Utility Location Committee - A committee represented by the various utility entities to ensure a consistent and coordinated approach to the placement of utility lines and facilities throughout the City.
Key Rate - A standard established by the Texas State Board of Insurance for determining the applicable insurance charges for commercial property in various cities based on its fire protection and prevention capabilities. The key rate only affects the City’s non-residential insurance charges.

Land Banking Program - The purchase and holding of land in locations well-suited for future development of a particular use.

Land Use Intensity - A general measurement of variation between uses based on the impacts of factors such as noise, emissions, lighting, hours of operation, traffic, population and/or employment, density of residential units, height and mass of structures, and visual compatibility.

Land Use Plan - A map and accompanying descriptions which serves as a general guide for the future land use pattern of the City.

Landfill - A large isolated area suitable for the burial of non-toxic solid wastes.

Landmark - A distinctive object or group of objects that establishes a point of reference; a focal point.

Landscaped Edge - A combination of berms, grass, trees, shrubs and other plant materials placed along the periphery of a development.

Large City Parks - Parks that serve the entire population of a city as opposed to a specific neighborhood or group of neighborhoods. Large city parks include facilities for a variety of activities with particular emphasis placed on natural features and environmental education.

They represent the best opportunity to preserve and protect major areas of environmental significance.

Level Of Service (LOS) - A measure of congestion on the roadways. Level of Service is designated by the letters "A" through "F" with "A" being free-flowing traffic and "F" being stop-and-go conditions. Level of Service "E" is the theoretical capacity of the roadway. Level of Service capacities can be measured along roadway links or at individual intersections. The City of Plano desires an LOS of "D" (90% of capacity) or better during peak hours for its thoroughfare network.

Library Development Plan, Revised (October 1985) - A text and map outlining the future growth and development of Plano’s library system, including criteria for services and facilities.

Lift Station - A pumping facility designed to force wastewater flow against grade for sections of the collection system that cannot be served by a gravity flow system.

Light Rail System - A fixed-rail transit system similar to a trolley. Light rail systems are typically at-grade and rely on an overhead wire for power.

Linkage - A connection between places, including paths and corridors.

Linkage/Linear Parks - Narrow greenbelts within or along floodplains, drainage channels, and power line easements that are generally unusable for other forms of development. Linkage parks are typically used for hike and bike trails and practice fields. They provide breaks in urban development patterns and connect with other parks in the City’s system.
Local Development Corporation (LDC) - A corporation which encourages local business start-up and expansion. The efforts of an LDC are usually targeted to a specified geographic area and may include financial as well as technical assistance to businesses.

Local Street - See Residential Street.

Lot Coverage - The percentage of a lot's total area that is allowed to be covered by the first floor or foundation of a building. For example, if a building with a first floor of 30,000 square feet is placed on a 100,000 square foot lot, the lot coverage is 30%.

Major Earth-Moving Operations - Operations which typically involve the preparation of undeveloped or unimproved land for construction. These include changing or altering the natural grade of the site, removing existing vegetation, or adding or removing soil from the site.

Major Thoroughfares - Includes most six-lane divided roadways in the City of Plano, including streets classified as "B+", "B" and "C". Type "B+" and "B" roadways can carry significant amounts of regional traffic, whereas type "C" thoroughfares are intended mainly for local traffic.

Manhole - An access point into a sewer or other underground utility to permit inspection and cleaning.

Master Plan - A term sometimes used synonymously with "Comprehensive Plan" to identify the overall plan for a City's (or other entity's) future development. The term also applies to the overall plans of certain departments or functional areas of the City for future facilities and operations. Five-year service plans are based on Master Plans.

MGD - Million gallons per day.

MICROTRIPS - A microcomputer-based traffic forecasting and analysis system. MICROTRIPS simulates the Urban Transportation Planning System (UTPS). Using population and employment data, it estimates the amount of traffic generated. That traffic is then assigned to the thoroughfare network so that areas of congestion and capacity problems may be pinpointed. MICROTRIPS will be used to evaluate the traffic impacts of large zoning cases and site plans.

Middle School - In PISD, a school serving grades six through eight (approximate ages 11 through 13).

Minimum Housing Code - An official set of standards for the maintenance of housing units in a safe, habitable condition.

Minimum Property Maintenance Code - A set of standards for the upkeep of structures and their surroundings in an orderly and presentable condition that, when viewed from the street or adjacent areas, does not detract from the general appearance of a neighborhood.

Monument Sign - A free-standing sign attached directly to the ground as opposed to being supported by one or more poles or other devices.

Mortgage-Backed Housing Bonds - A program by which the City, using its tax-exempt bonding authority, makes low interest loan money available, generally to first-time home buyers meeting certain income restrictions. The loans are usually issued through participating local financial institutions.

Multi-Family - Buildings which contain three or more dwelling units.
Neighborhood Conservation Program - A coordinated multi-faceted program which seeks to preserve homeowner and community investment in neighborhoods. The program monitors neighborhoods for evidence of either public or private facility deterioration, and develops strategies for arresting the decline.

Neighborhood Housing Density Policy - A policy no longer in effect which placed limits on the percentages of medium and high density housing units within a neighborhood.

Neighborhood Organization - See Homeowners Association.

Neighborhood Parks - Small park facilities, typically 7.5 to 10 acres in size, designed to serve a single neighborhood of approximately one square mile in area. Neighborhood parks are situated within walking distance of the population, and access to them should not require the crossing of major thoroughfares.

Neighborhood Unit - The standard area of planning measurement for Plano. A neighborhood unit is generally bounded by arterial streets with residential uses located in the interior, and often having a park and school in the center. When higher density residential uses are included, they are located on the periphery of the neighborhood. Commercial uses are located at selected intersections. The neighborhood unit is the basis for several housing policies and for the City's data base system.

Non-Durable Goods - Products which have a limited lifetime such as clothing and household goods.

North Central Texas Council of Governments (NCTCOG) - An organization representing local governments in a sixteen-county region that assists in area-wide planning, information gathering, and the general coordination of common goals and objectives.

North Central Texas Industrial Development Authority - A three-member body organized under the Texas Development Corporation Act of 1979 which can issue industrial revenue bonds on behalf of the City of Plano. The Plano Chamber of Commerce serves as its contact agency.

North Texas Industrial Development Board (NTIDB) - An agency which serves as the review body for requests for Industrial Revenue Bonds from companies interested in locating in Plano and other area cities (see Industrial Review Board).

North Texas Municipal Water District (NTMWD) - Organized in 1951, NTMWD is a non-profit, wholesale provider of water, wastewater treatment, and solid waste disposal to its 11 member cities which include Farmersville, Forney, Garland, Mesquite, McKinney, Plano, Princeton, Richardson, Rockwall, Royce City and Wylie.

Northeast Texas Library System (NETLS) - One of ten geographic divisions in the State of Texas that is responsible for coordinating the sharing of information and materials between local library systems. NETLS is also responsible for distribution of state and federal funds for libraries.

Nursery School - Any facility offering care, supervision or education for children not of required school age (generally age 5 or under) or for school age children during hours in which they would not normally attend school.
On-Site Wastewater System - A system which typically includes septic tanks, cesspools and sewage pits. On-site wastewater systems are generally limited to large lot, rural residential developments where city services are unavailable, and where soil conditions are adequate to prevent contamination of ground water.

One Hundred Year Flood - A flood level which has a 1% chance of occurring in any one year, and which has been adopted by the Federal Emergency Management Agency (FEMA) as the basis for floodplain management.

"Open Space Plan for Collin County" - A comprehensive plan for the protection and preservation of key land and water resources in Collin County. The plan identifies areas of significant natural features, and recommends ways in which the various governmental entities can work together to integrate those features into the growth and development of the County.

Outfall Sewer - Connects the end of wastewater collection systems directly to the treatment facility.

Oversize Costs - The cost of infrastructure improvements that are larger than would normally be required to serve a specific development. For example, if a development is to front onto a proposed major thoroughfare, the developer would be responsible for funds necessary to build a standard collector street and the City would reimburse for the amount above that figure. The justification for reimbursement is that the proposed major thoroughfare would benefit the community as a whole, in addition to the residents and users of the development itself.

Overzoning - The existence of more land zoned for certain zoning categories than what will be required to meet projected demand for future land uses within those categories.

Pad Site - A single-user site for a building of 5,000 square feet or less, generally located in a corner shopping center or in a strip development along a freeway.

Paratransit - Forms of transit service other than traditional fixed-route bus or rapid rail. Paratransit includes taxi and shared-ride taxi service, dial-a-ride, carpool and vanpool programs among others.

Passive Recreational Uses - Park facilities designed for the casual, leisurely enjoyment of the user such as nature trails, picnic areas, etc.

Path - A basic route of travel or movement between places (see Linkage).

Patio or Garden Home - A type of single-family detached house on a smaller lot than traditional single-family development. The home may be centered on the lot, or one side yard may be reduced to zero to create a zero-lot-line home. Patio and garden homes are often constructed in a cluster arrangement permitting common open space areas.

Peak Hour - The four consecutive 15-minute periods having the highest traffic volumes. Peak hours (rush hours) also refer to the two- or three-hour time periods in the morning and evening when transit and automobile traffic is the greatest.
Performance Standards - Zoning and subdivision regulations that use measurable criteria to evaluate the resulting effects or characteristics of a particular use or development. Performance standards are commonly applied to industrial uses with limitations on noise, emission, and odor levels. They can be adapted to a variety of uses and development types as long as quantifiable impacts can be defined.

Permeable Surface - That portion of a lot that is capable of absorbing water.

Place - An area or location that is distinguished from others within a city by its function, architectural features, or intensity of development.

Planned Development Zoning (PD) - A designation applied to parcels which are to be developed as a unified whole. The PD designation requires submission of a Circulation Plan so that adequate access to the parcel and its component parts is preserved. PD zoning is also used when more than one zoning district is combined (such as PD-Office/Retail or PD-Single-Family-7/Single-Family-9) or when the base standards of the Zoning Ordinance are varied (such as additional height and setback restrictions or limiting the number of allowed uses).

Planned Residential Development (PRD) - A development incorporating innovative housing types or preserving environmentally significant features. After detailed site plan review, property may be developed to the full density allowed by zoning. (For example, Single-Family-7 property normally develops at approximately 3.8 dwelling units per acre; under a PRD, density can be increased to 5.0 dwelling units per acre.) The developer, in effect, is allowed to gain the density normally allocated to streets and roads in exchange for achieving desired community objectives such as provision of affordable housing or preservation of environmentally significant areas. PRD’s may also be developed without increasing the density.

Planning & Zoning Commission - An advisory body of eight members appointed by the City Council to make recommendations on zoning and development requests, comprehensive planning, and special studies and plans.

Plano Design Manual - The official standards of the City's Engineering Department for the preparation of construction drawings for streets, utilities and drainage systems.

Plano Developers Council - An organization of firms who own and/or develop properties in Plano which facilitates communication and coordination between the City and the development community on common concerns and issues.

Plano Economic Development Board, Inc. (PEDB) - A committee formed by the City, the Plano Independent School District and the Chamber of Commerce to promote economic development efforts. The Comprehensive Plan suggests that the PEDB be the policy making body for economic development decisions, and be assisted by a small professional staff in its efforts.

Plano Homeowners Council - An organization consisting of representatives from the various homeowners associations in Plano that provides for the sharing of information and ideas between them. The Homeowners Council also coordinates with the City on matters relating to the growth and development of Plano.
Plano Independent School District (PISD) - The public school district serving most of Plano's geographic area. PISD provides instruction from Kindergarten through Grade 12. Other public school districts serving portions of Plano include Lewisville (LISD), Frisco (FISD), and Allen (AISD).


Plat - A survey of the boundary of a tract of land, subdivision or individual lot, dedicating all public rights-of-way and easements affecting the property. Plats must be approved by the Planning & Zoning Commission (see Subdivision).

Pole Signs - A free-standing sign generally mounted on a single pole and used to identify business operations.

Police Assembly Point - A location used only for the assembly and deployment of patrol personnel.

Police Headquarters Facility - The central station, or facility, which can accommodate the full range of police operations including general and administrative offices, communications center, prisoner detainment, walk-in service for the public, storage and maintenance of equipment, and assembly and deployment of patrol personnel.

Police Satellite Station - A police station that provides for assembly and deployment of patrol personnel, walk-in service for the public, and general offices.

Pre-School - See Nursery School.

Preservation - The restoration of a neighborhood or business area to its appearance at a certain point in time; generally used in conjunction with historic district and historic property designation. Areas designated for preservation have rigid property maintenance and appearance guidelines, and infill uses not in keeping with the prevalent architectural style should not be allowed.

Private Providers of Education - Educational facilities owned and/or operated by individuals, corporations, foundations, or non-profit organizations such as churches.

Public Hearing - A formal consideration of a zoning case or other related matter by the Planning & Zoning Commission or City Council in which time is set aside for concerned citizens to come forward and express their opinions on the proposal.

Public Infrastructure - Permanently installed facilities, generally placed underground or at-grade, which form the basis for the provision of City services. Typically included are thoroughfares, bridges, water and sanitary sewer lines, drainage channels, and storm sewers.

Redevelopment - The clearing of a blighted or severely deteriorated area and replacing it with new commercial or residential development.

Regional Thoroughfares - Includes roadways which handle significant amounts of through regional traffic, including Types "T", "AA", "A", "B+", and "B".

Residential Cell - See Neighborhood Unit.
Residential Streets - Includes Types "G" and "H" thoroughfares. Type "G" is the standard residential street in Plano, with a 50-foot right-of-way. Type "H" streets are intended for estate type development.

Response Time - The amount of time that expires from the receipt of a request for police, fire or emergency medical assistance until arrival upon the scene.

"Retail Corner Guidelines" - A set of design criteria, adopted by the City Council in October, 1985 to assist in the review of development proposals for retail centers.

Retail Employment - Employment which involves the selling of goods.

Retention/Detention System - Methods of slowing or containing storm runoff from one or more parcels of land during periods of heavy rainfall. Retention ponds hold water indefinitely, while detention ponds hold water briefly during a storm and release it at a predetermined rate to reduce runoff concentrations.

Retirement Housing - A specific housing type described in the Zoning Ordinance that is reserved for persons over age 55, and that includes special amenities for the elderly. Other projects targeted toward the senior citizen community may be developed under traditional zoning districts, however.

Revitalization - Upgrading a deteriorating or deteriorated neighborhood or commercial area. Various techniques are used in revitalization of an area, but usually existing structures are retained and existing infrastructure is upgraded.

Revolving Fund - A pool of loan funds which are used to restore and revitalize deteriorated or historic structures. Proceeds from the sale of structures and/or loan payments are returned to the fund so that it becomes a continual source of loan money.

Right-of-Way - The publicly owned space necessary to accommodate the construction and maintenance of a street and its associated facilities, including pavement, curbs, utilities, drainage facilities, sidewalks, medians, and parkways.

Sanitary Sewer - A pipe or series of pipes that transports effluent from individual homes and businesses to treatment facilities.

Screening Walls - Reinforced masonry walls, generally six to eight feet in height, used to separate certain types of uses from residential uses. Screening walls are also installed along major thoroughfares between the roadway and paralleling alleys and/or the rear yards of residential lots. They are mainly intended to decrease visual and noise impacts between uses.

Secondary Thoroughfare - A four-lane divided or undivided through street that provides local traffic an alternative route to major thoroughfares.

Sedimentation - The process by which soil and surface materials are removed by storm run-off and deposited downstream.

Senior High School - In PISD, a school serving grades eleven and twelve (approximate ages 16 and 17).
Service Employment - Employment in businesses that provide personal services. Most office employment in areas such as finance, insurance, and real estate is classified as service-related.

Setbacks - The distances away from lot lines, zoning district lines, or other specified boundaries that must be observed in the placement of buildings.

Shared-Ride Taxi Service - A service where patrons call a taxi for transportation to and from a fixed point, usually bus stops. The taxi may pick up and discharge other passengers during the trip.

Siltation - The build-up of debris and sediment in creeks and channels which reduces their flow capacities.

Single-Family Attached Unit - See Townhouse.

Single-Family Detached Unit - A dwelling which is designed for and occupied by not more than one household, surrounded by open space or yards, and which is not attached to any other dwelling by any means.

Site Plan - A detailed drawing of construction proposed on a site including information about the building footprint, utilities, topography, parking, access, etc. Site plans must be approved by staff or by the Planning & Zoning Commission and the City Council before construction may begin on a tract.

SMSA (Standard Metropolitan Statistical Area) - The traditional urban component for detailed comparative analysis by the United States Bureau of the Census. SMSA's include cities of greater than 50,000 and surrounding communities that have a direct economic relationship to them. SMSA's have recently been replaced by CMSA's (Consolidated Metropolitan Statistical Areas), which have geographical boundaries with more flexibility.

Solid Waste Transfer Station - A facility at which solid waste from local garbage collection vehicles is accumulated, compacted, placed on larger vehicles, and transported to landfill sites.

Special Purpose Park - A park providing for a single function or activity, either passive or active, with no specific service area. Examples include the Plano Municipal Golf Course and Haggard Park in downtown Plano.

Specific Use Permit (SUP) - The granting of a particular use on a site while maintaining its base zoning. In Plano's Zoning Ordinance, each district has a list of those uses allowed by right and those that may be permitted if determined appropriate following public hearings before the Planning & Zoning Commission and City Council. An example is the granting of an SUP for a child care center in a residentially zoned district.

Specification Standards - A system in which requirements for subdivision improvements or engineering design are specifically spelled out in design manuals, drawings, and ordinances, and in which substitutes are generally not accepted.

Spring Creek Parkway East Area Study - An evaluation, prepared by Kimley-Horn and Associates and by Harland Bartholomew and Associates, of alternative land use and transportation plans for an area in northeast Plano bounded by Spring Creek Parkway, Rowlett Creek, Bowman Branch, and Central Expressway (U.S. 75). The study included components such as a future DART terminal, a Collin County Community College campus, and a civic center.
Spring Creekwalk - A proposed mixed-use development to be located due north of Collin Creek Mall. The 160-acre site was designated by the Plano Horizon Committee during preparation of the City's Comprehensive Plan. Spring Creekwalk is proposed to stimulate economic activity, and to provide a special image and identity for Plano.

State Department of Highways and Public Transportation - An official department of the State of Texas, governed by the Texas Highway Commission, that is responsible for the construction and maintenance of designated State highways. It also has the responsibility for certain nationally designated roadways such as U.S. 75.

Storm Sewer - A drainage facility that collects and transports storm run-off underground to the main channels or tributaries of a watershed.

Streetscape Fixtures - Special details that are part of the overall character of a city, and are within the immediate view of pedestrians and passengers of vehicles. Examples include lighting, signage, street furniture, paving, sidewalks, etc.

Strip Commercial Development - Commercial development which is placed along the frontage of roadways in a manner unrelated to surrounding development, and which lacks adequate cross access. Strip commercial development is typified by portions of the Avenue K Corridor in Plano, and is contrasted with the preferred land use pattern of placing retail at intersections and within unified developments.

Structured Parking - A parking facility which is constructed above or below the surface elevation of a site through the use of man-made support and foundation structures.

Subdivision - The legal platting process of creating separate parcels for the purpose of sale or development. The term more commonly refers to a specific group of lots or homesites established by the platting process and designated or advertised with a common name (see Plat).

Subdivision Ordinance - Local regulations establishing standards and procedures for the creation of building sites from larger or undeveloped tracts of land, and including provisions for the installation and cost allocation of streets, utilities, drainage facilities, and other necessary improvements.

Tax Abatement - A taxing unit grants full or partial tax exemptions to owners of property within a reinvestment zone as a stimulant to private development.

Tax Base - The total assessed value of all land and structures located within a city, school district or other jurisdiction.

Tax Incentives for Historic Preservation - A program developed to encourage restoration of historic structures by reducing taxes on the value of the improvements made to the structure, and/or reducing taxes on the value of the structure itself.

Tax Increment Financing - The financing of improvements in a re-investment zone through the increases in taxable value following enactment of the program.

Taxable Value - The tax base of a jurisdiction minus all exemptions for homesteads, non-profit organizations, etc.

Texas Employment Commission (TEC) - The state agency responsible for maintaining employment statistics and records, and for assisting persons seeking employment.
Texas Turnpike Authority (TTA) - The agency responsible for construction and maintenance of the State’s self-financed, pay-for-travel roadways, including the Dallas North Tollway.

Thoroughfare Plan - A map of Plano’s existing and future system of thoroughfares by type, prepared in conjunction with the Comprehensive Plan.

Thoroughfare Standards Ordinance - An officially adopted City document that identifies minimum requirements for the design and placement of roadways, sidewalks, and related public and private improvements.

Townhouse - A type of housing in which one- and two-story units are placed and attached side by side, but not stacked on top of one another. Units can be for rent or owned fee simple or as condominiums. Plano’s single-family attached district is designed for townhouses on individually platted lots with frontage on a public street.

Traffic Impact Analysis (TIA) - Study of the traffic to be generated by proposed developments. The effects of additional traffic on the thoroughfare system are measured against the system’s capacity. TIA’s are conducted for both zoning and site plan review. Applicants must conduct TIA’s for developments meeting certain threshold traffic generation levels, while City staff conducts analyses for developments under the threshold. Mitigation measures are required for projects which overload the thoroughfare system.

"Transportation Element Technical Memorandum" - A preliminary analysis of Plano’s transportation system prepared by Kimley-Horn and Associates (KHA) in conjunction with the development of the Comprehensive Plan.

Transportation Improvements Program (TIP) - A schedule of roadway construction and improvement projects ranked in order of priority and suggested year of construction. The TIP is developed for five-year intervals and is updated annually.

Transportation Systems Management (TSM) - The name given to a number of actions which may be taken to improve the transportation system at low cost (when compared to the alternative of new roadway construction or expansion). TSM actions can include more efficient traffic signalization, double left-turn lanes, free right-turn lanes, carpool and vanpool organizations, and flextime arrangements, among others.

2020 Design Year - See Build-Out.

Two-Feed Water System - The provision of more than one water line connection to a development to ensure that damage to one source of water would not leave the development unprotected in case of a fire emergency.

Unfunded Extensions - Portions of the Dallas Area Rapid Transit (DART) service plan that are not presently included in its long-range financial program. The unfunded extensions are included on the plan as potential routes if additional financial arrangements can be made.
Unit-Based Density Standard - Controlling total density of an apartment project through limits on the number of units per acre. An equal number of units per acre is allowed whether the complex is comprised of all one-bedroom units or all three-bedroom units.

University of Texas at Dallas (UTD) - Located in Richardson, UTD provides junior and senior level undergraduate instruction and a wide range of graduate programs. An engineering school was recently approved for the campus.

Urban Design - The process of ordering a community's natural and man-made features to establish its visual image and identity, while creating a development pattern which makes the community understandable to residents and visitors.

Urban Sprawl - A development pattern characterized by new subdivisions that are not contiguous with previously developed areas of a community, leaving gaps for future infill and resulting in greater demands for public services.

Vocational, Special and Adult Educational Facilities - School facilities offering programs and services specifically designed for PISD residents having needs that cannot be met within the normal curriculum and hours of operation. Often such facilities are part of existing schools within the system, operating during evening hours and with a larger service area than that of regular school operations.

Water Main - A water line, generally six inches in diameter or greater, that is part of the City's distribution system. Individual service lines connecting onto private property are not considered to be water mains, regardless of size.

Watershed - Includes the entire land area draining into a creek or carrier of water.

Zero-Lot-Line Home - A type of home, generally a garden or patio home, in which all the required side yard is placed on one side of the lot, reducing the other side yard to zero. This allows for more usable side yard space in small-lot subdivisions. Maintenance easements must be provided on the adjacent lot.

Zoning Ordinance - The official city document that divides a community into districts for the purpose of establishing appropriate types and intensities of use throughout the city.
PLANO COMPREHENSIVE PLAN
APPENDIX B - STATISTICAL SUMMARY

INTRODUCTION

The statistical appendix presents a variety of information and projections used in the development of the Comprehensive Plan's policies and recommendations. Tables and charts illustrate data as it changes over time.

The appendix includes a description of the various sources of information and projections, and a general statement which tells how the data was derived. The information is divided into four basic areas:

- Demographics
- Housing Activity
- Development Activity
- Work Force Characteristics

The types of information found in each section are also described.

INFORMATIONAL SOURCES

The City worked with a number of sources and organizations in formulating projections for the Comprehensive Plan. These groups included the following:

- United States Census Bureau provided historical population, work force, age, housing and income information.
- M/PF Research, Inc. (M/PF) and Plano Independent School District (PISD) supplied student age and yield distributions.
- North Central Texas Council of Governments (NCTCOG) provided single-family and multi-family household occupancy rates, population from household sizes, and trade and professional multipliers for employment forecasts.
- Harland Bartholomew & Associates (HBA) served as the Comprehensive Plan consultant for demographic and development indicators.
- City of Plano provided development and other statistical data.
DEMOGRAPHICS

Plano’s extraordinary growth since the 1970s makes it difficult to project future growth. Growth is linked to a number of variables such as the nature of regional growth, the dynamics of private land development including land values, and the attractiveness of bordering communities.

The demographics portion of the appendix is divided into sections detailing characteristics and projections for population, number of households, household size, and age distribution.

POPULATION

The City used NCTCOG’s annual forecasting method in determining a 1988 population estimate which multiplies residential permit activity by single-family and multi-family occupancy rates (see Table 1 and Graph).
TABLE 1
1960–2020 POPULATION, HOUSEHOLDS AND PERSONS/HOUSEHOLD TOTALS AND PROJECTIONS
City of Plano, Texas

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Households</th>
<th>Persons/Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>3,695</td>
<td>1,103</td>
<td>3.35</td>
</tr>
<tr>
<td>1970</td>
<td>17,782</td>
<td>5,505</td>
<td>3.23</td>
</tr>
<tr>
<td>1980</td>
<td>72,331</td>
<td>24,259</td>
<td>2.98</td>
</tr>
<tr>
<td>1988</td>
<td>126,007</td>
<td>45,672</td>
<td>2.76</td>
</tr>
<tr>
<td>1990</td>
<td>139,200</td>
<td>48,670</td>
<td>2.86</td>
</tr>
<tr>
<td>2000</td>
<td>259,000</td>
<td>98,000</td>
<td>2.64</td>
</tr>
<tr>
<td>2010</td>
<td>309,000</td>
<td>121,170</td>
<td>2.55</td>
</tr>
<tr>
<td>2020</td>
<td>360,000</td>
<td>144,000</td>
<td>2.50</td>
</tr>
</tbody>
</table>

Source: City of Plano, HBA, NTCOG

1988–2020 POPULATION AND HOUSEHOLD PROJECTIONS
(By Thousands of Persons)
City of Plano, Texas

Source: City of Plano, HBA
NUMBER OF HOUSEHOLDS

The current housing stock was determined by updating 1980 Census totals with building permits, demolition permits, and annexations.

For household projections from 1990 to 2020, HBA used a combination of approaches including extrapolation of M/PF figures, regional share calculations from NCTCOG, and analyses of forecasts from several other sources (see Table 1 and Graph).

HOUSEHOLD SIZE

Household size was generated initially as an overall figure for all households based on extrapolation of past trends. These initial figures were then compared to persons per household figures used by the City as input into the NCTCOG's transportation model. They were also compared to regional persons per household figures. Figures for other cities within the NCTCOG area were also analyzed to help derive Plano's household size for single-family and multi-family residences. Table 1 and its corresponding Graph illustrate total growth projections for 1988 to 2020.

It was generally assumed that Plano would continually have higher persons per household figures than the Dallas/Fort Worth metropolitan area. However, as Plano develops toward "build-out" the difference will diminish.

AGE DISTRIBUTION

Age distribution was calculated by forwarding the existing population of each period to the subsequent period using life tables. The resulting age distribution for each forecast period was also compared to figures from M/PF for PISD. This data was compatible, and is shown in Table 2 and its Graph.
TABLE 2
1988–2020 FORECAST AGE GROUP DISTRIBUTION
City of Plano, Texas

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Children (0-14 years)</td>
<td>36,668</td>
<td>40,510</td>
<td>66,000</td>
<td>64,900</td>
<td>61,200</td>
</tr>
<tr>
<td>Young Adults (15-24 years)</td>
<td>20,163</td>
<td>21,710</td>
<td>41,100</td>
<td>43,300</td>
<td>46,800</td>
</tr>
<tr>
<td>Prime Labor Force (25-44 years)</td>
<td>44,604</td>
<td>45,670</td>
<td>93,400</td>
<td>114,300</td>
<td>126,000</td>
</tr>
<tr>
<td>Older Labor Force (45-64 years)</td>
<td>20,540</td>
<td>26,860</td>
<td>49,300</td>
<td>71,100</td>
<td>97,200</td>
</tr>
<tr>
<td>Elderly (65+ years)</td>
<td>4,032</td>
<td>4,450</td>
<td>9,200</td>
<td>15,400</td>
<td>28,800</td>
</tr>
<tr>
<td>TOTAL</td>
<td>126,007</td>
<td>139,200</td>
<td>259,000</td>
<td>309,000</td>
<td>360,000</td>
</tr>
</tbody>
</table>

Source: City of Plano, HBA, NCTCOG
HOUSING ACTIVITY

The City experienced a tremendous increase in total number of housing units from 1983 to 1987. The household growth rate exceeded that of general population indicating a general decrease in household size. Average household size will continue to decrease as single heads of households, such as single workers and the elderly, increase. Some highlights of Plano’s housing stock are outlined below.

HOUSING UNITS

- Total number of housing units, including all housing types, show an increase of 36% from 1983 to 1987 (see Table 3 and Graph).

- In 1987, single-family structures accounted for 73% of the total housing stock (32,797 units).

- Nearly 26% of the total housing stock in 1987 were apartments, townhouses and duplexes (11,509 units).

- Only 538 mobile home units exist in the City, which is roughly 1% of the total housing stock.
TABLE 3
1983–1987 TOTAL HOUSING UNITS
City of Plano, Texas

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Units</td>
<td>32,761</td>
<td>37,057</td>
<td>39,682</td>
<td>42,912</td>
<td>44,844</td>
</tr>
</tbody>
</table>

Source: City of Plano

1983–1987 TOTAL HOUSING UNITS
(By Thousands)
City of Plano, Texas

Source: City of Plano
DEVELOPMENT ACTIVITY

Plano's development activity since the late 1970s makes it one of the fastest growing communities in the nation. The City's absorption of vacant land is second only to Dallas within the Metroplex. Indicators of development activity include comparison of total building values, total single-family permits, and housing permits by square footage (see Table 4, Table 5, and Graphs). Some highlights of Plano's development activity are outlined below.

BUILDING PERMIT VALUES

- Residential permit values increased by 203% from 1980 to 1987 (306% increase from 1980 to 1984) and peaked at nearly 310 million dollars in 1983.

- Commercial building permit values increased by 44% from 1980 to 1987 (224% increase from 1980 to 1985) and reached a maximum annual value of 295 million dollars in 1985.
<table>
<thead>
<tr>
<th>Year</th>
<th>Residential</th>
<th>Commercial</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>70.57</td>
<td>90.94</td>
<td>161.51</td>
</tr>
<tr>
<td>1981</td>
<td>76.01</td>
<td>71.97</td>
<td>147.98</td>
</tr>
<tr>
<td>1982</td>
<td>131.68</td>
<td>112.39</td>
<td>244.07</td>
</tr>
<tr>
<td>1983</td>
<td>309.80</td>
<td>96.28</td>
<td>406.08</td>
</tr>
<tr>
<td>1984</td>
<td>286.57</td>
<td>228.77</td>
<td>515.34</td>
</tr>
<tr>
<td>1985</td>
<td>233.46</td>
<td>294.50</td>
<td>527.96</td>
</tr>
<tr>
<td>1986</td>
<td>163.61</td>
<td>169.10</td>
<td>332.71</td>
</tr>
<tr>
<td>1987</td>
<td>214.06</td>
<td>130.81</td>
<td>344.87</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,485.76</td>
<td>1,194.76</td>
<td></td>
</tr>
</tbody>
</table>

Source: City of Plano
TABLE 5
1983–1987 SINGLE–FAMILY UNIT PERMITS BY SQUARE FEET
City of Plano, Texas

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2,000 square feet</td>
<td>488</td>
<td>576</td>
<td>556</td>
<td>522</td>
<td>255</td>
</tr>
<tr>
<td>2,000–2,400 square feet</td>
<td>555</td>
<td>635</td>
<td>442</td>
<td>208</td>
<td>237</td>
</tr>
<tr>
<td>2,400–3,000 square feet</td>
<td>719</td>
<td>657</td>
<td>398</td>
<td>193</td>
<td>416</td>
</tr>
<tr>
<td>3,000+ square feet</td>
<td>481</td>
<td>513</td>
<td>491</td>
<td>348</td>
<td>534</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,253</td>
<td>2,381</td>
<td>1,887</td>
<td>1,271</td>
<td>1,442</td>
</tr>
</tbody>
</table>

Source: City of Plano
WORK FORCE CHARACTERISTICS

The growth characteristics of the City make it difficult to accurately forecast employment. This is particularly true for service employment because office construction tends to occur sporadically. Retail and basic employment is much easier to monitor because of traditional spending habits and methods for tracking technological changes.

Basic employment includes wholesale trade, communication and public sector industries. Its approximate rate of growth, in comparison to population, was assumed to be the same as in the past.

Work force characteristics include local employment, regional share of employment, and household income distribution.

LOCAL EMPLOYMENT

Local employment estimates were determined by applying the following multipliers to existing and potential non-residential space:

- Office - One employee/300 square feet
- Local Retail - One employee/500 square feet
- Regional Retail - One employee/600 square feet

It was assumed that local retail space would develop at the same rate as the past, based on household information. It was also assumed that the rate of growth in office space would peak around 1995, and would continue to increase but at a slower rate. Employment generated by office development was assigned to the service employment sector. Development of Plano's major employment centers including the Legacy, Dallas North Tollway, U.S. 75, and S.H. 121 will account for the significant increase in local employment from 1990 to 1995.

Tables 6 and 7 and their corresponding Graphs present employment forecasts and absolute change in employment by sector.
TABLE 6
1980–2000 FORECAST EMPLOYMENT BY SECTOR
City of Plano, Texas

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Employment</td>
<td>6,267</td>
<td>7,078</td>
<td>8,112</td>
<td>15,988</td>
<td>23,863</td>
</tr>
<tr>
<td>Retail Employment</td>
<td>2,172</td>
<td>5,914</td>
<td>8,904</td>
<td>16,742</td>
<td>20,858</td>
</tr>
<tr>
<td>Service Employment</td>
<td>5,954</td>
<td>8,414</td>
<td>18,180</td>
<td>53,180</td>
<td>75,563</td>
</tr>
<tr>
<td>TOTAL</td>
<td>14,393</td>
<td>21,406</td>
<td>35,196</td>
<td>85,910</td>
<td>120,284</td>
</tr>
</tbody>
</table>

Source: HBA, NCTCOG
### TABLE 6
**1980–2000 FORECAST EMPLOYMENT BY SECTOR**
City of Plano, Texas

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Employment</td>
<td>6,267</td>
<td>7,078</td>
<td>8,112</td>
<td>15,988</td>
<td>23,863</td>
</tr>
<tr>
<td>Retail Employment</td>
<td>2,172</td>
<td>5,914</td>
<td>8,904</td>
<td>16,742</td>
<td>20,858</td>
</tr>
<tr>
<td>Service Employment</td>
<td>5,954</td>
<td>8,414</td>
<td>18,180</td>
<td>53,180</td>
<td>75,563</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>14,393</td>
<td>21,406</td>
<td>35,196</td>
<td>85,910</td>
<td>120,284</td>
</tr>
</tbody>
</table>

Source: HBA, NCTCOG

---

**1980–2000 FORECAST TOTAL EMPLOYMENT BY SECTOR**
(By Thousands of Employees)
City of Plano, Texas

Source: HBA, NCTCOG
### TABLE 7
1980–2000 ABSOLUTE CHANGE IN EMPLOYMENT BY SECTOR
City of Plano, Texas

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Employment</td>
<td>811</td>
<td>1,034</td>
<td>7,876</td>
<td>7,876</td>
<td>17,596</td>
</tr>
<tr>
<td>Retail Employment</td>
<td>3,742</td>
<td>2,990</td>
<td>7,838</td>
<td>4,116</td>
<td>18,686</td>
</tr>
<tr>
<td>Service Employment</td>
<td>2,460</td>
<td>9,766</td>
<td>35,000</td>
<td>22,383</td>
<td>69,609</td>
</tr>
<tr>
<td>TOTAL</td>
<td>7,013</td>
<td>13,790</td>
<td>50,714</td>
<td>34,375</td>
<td>105,891</td>
</tr>
</tbody>
</table>

Source: HBA

### Diagram
1980–2000 ABSOLUTE CHANGE IN EMPLOYMENT BY SECTOR
(By Thousands of Employees)
City of Plano, Texas

Source: HBA, NCTCOG
REGIONAL SHARE OF EMPLOYMENT

The relative share of regional growth the City of Plano will capture according to NCTCOG and HBA forecasts is difficult to interpret. In accordance with NCTCOG'S overall growth expectations from 1985 to 1990, Plano's share of employment for this period is expected to be lower than that reported for the 1980 to 1985 time period. Capture rates without more historical data are difficult to estimate. Consequently, Table 8 and its corresponding Graph primarily indicate the general level of comparability between forecasts.

HOUSEHOLD INCOME DISTRIBUTION

Household income distribution was calculated by advancing 1980 Census income (by group) information into the future using employment and income multipliers. Attention was paid to household income levels in other cities in the Dallas/Fort Worth area, and to industries located in Plano since 1980. Table 9 and its corresponding Graph illustrate forecast household income distribution from 1988 to the year 2020.
### TABLE 8
1980–2000 REGIONAL SHARE OF EMPLOYMENT
City of Plano, Texas

<table>
<thead>
<tr>
<th>Year</th>
<th>Change in Region</th>
<th>Change in Plano</th>
<th>Share of Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980-1985</td>
<td>343,250</td>
<td>7,013</td>
<td>5,645</td>
</tr>
<tr>
<td>1985-1990</td>
<td>357,218</td>
<td>13,790</td>
<td>4,835</td>
</tr>
<tr>
<td>1990-2000</td>
<td>810,463</td>
<td>85,088</td>
<td>77,229</td>
</tr>
<tr>
<td>1980-2000</td>
<td>1,520,931</td>
<td>105,891</td>
<td>87,709</td>
</tr>
</tbody>
</table>

Source: HBA
### 1988–2020 Forecast Household Income Distribution

**City of Plano, Texas**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $12,500</td>
<td>5,800</td>
<td>6,180</td>
<td>12,640</td>
<td>15,150</td>
<td>17,140</td>
</tr>
<tr>
<td>$12,500-19,999</td>
<td>6,211</td>
<td>6,620</td>
<td>13,330</td>
<td>18,870</td>
<td>18,140</td>
</tr>
<tr>
<td>$20,000-29,999</td>
<td>12,240</td>
<td>13,060</td>
<td>26,270</td>
<td>32,470</td>
<td>38,590</td>
</tr>
<tr>
<td>$30,000-39,999</td>
<td>12,012</td>
<td>12,610</td>
<td>24,890</td>
<td>31,020</td>
<td>37,300</td>
</tr>
<tr>
<td>$40,000-49,999</td>
<td>5,435</td>
<td>5,840</td>
<td>12,050</td>
<td>15,270</td>
<td>18,430</td>
</tr>
<tr>
<td>$50,000-74,999</td>
<td>3,974</td>
<td>3,600</td>
<td>7,250</td>
<td>9,210</td>
<td>11,380</td>
</tr>
<tr>
<td>$75,000+</td>
<td>0</td>
<td>780</td>
<td>1,570</td>
<td>2,180</td>
<td>3,020</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>45,672</td>
<td>48,670</td>
<td>98,000</td>
<td>124,170</td>
<td>144,000</td>
</tr>
</tbody>
</table>

Source: HBA