

I. SMARTGROWTH ANALYSIS PURPOSE

The SMARTGrowth Analysis provides a critical linkage between the Master Plan process and the consideration of zoning and/or actual development for the purpose of ensuring that each proposed master plan application, zoning application, development plan, record plat or site plan is evaluated within the context of its impact upon the community with the analysis focusing on issues of community-wide concern identified in the Master Plan. In terms of its integration into the Town's land development process, the SMARTGrowth Program through use of the SMARTGrowth Analysis forms a bridge or linkage between the Master Plan and the site-specific or project-specific zoning regulations in the Land Development Code, creating a project-specific analysis within the context of community impacts.

The SMARTGrowth Analysis required shall apply to and occur in conjunction with all applications for Master Plan amendments, zoning amendments, development plans, record plats and/or site plans, where applicable filed after February 17, 2000 and as amended on July 15, 2002. The SMARTGrowth Analysis referenced herein shall not be applicable to minor plats, amended plats, replats that do not increase density, or for institutional or civic uses. Relative to process, the SMARTGrowth Analysis shall be included as part of the planning analysis provided for a master plan amendment, zoning amendment, development plan, non-residential site plan, or record plat and as such, requires approval through procedures set forth by the Town's Land Development Code and State Law.

II. SMARTGROWTH CRITERIA PURPOSE AND OBJECTIVES

SMARTGrowth Criteria effectuate the community vision and values embodied in the Flower Mound Master Plan by translating them into constitutive development criteria to evaluate the community-wide impacts of development applications and projects for the purpose of ensuring that development occurs in a manner that contributes to the accomplishment of community character and quality of life objectives. There are two general types of SMARTGrowth Criteria used in the SMARTGrowth Program:

- a. Regulatory
- b. Incentive

The SMARTGrowth Criteria have also been grouped into six general categories, as follows: adequate public infrastructure, adequate public facilities, adequate public services, economic development, environmental quality, and community character.

In applying the SMARTGrowth Analysis to a specific development application or project, a “pass-fail” evaluation will be utilized to determine compliance with each criterion. In other words, for a development application or project to attain compliance with the SMARTGrowth Program (ensuring that it contributes to community character and quality of life objectives), it must be evaluated as “passing” or complying with each applicable SMARTGrowth Criterion at each applicable step in the development process. Otherwise, it will “fail” and be denied until such time as compliance is or can be attained.

III. DEFINITIONS

Agricultural resource management easement: An easement granted to the benefit of adjacent property owners and recorded on the face of a record plat and/or recorded in conjunction with a building permit for the purpose of acknowledging the existence of agricultural operations and uses on adjacent lands and waiving common law rights to object to necessary and customary agricultural management activities legally conducted in association with such agricultural operations and uses.

Arterial: A thoroughfare as defined and identified on the Town's adopted Thoroughfare Master Plan.

Background traffic volumes: For the study year, the set of daily and peak-hour traffic volumes projected to exist in the study area (including projected traffic volumes from the lot inventory in the study area) prior to the addition of project traffic.

Best Management Practices (BMPs): The methods that have been determined to be the most effective, practical means of preventing or reducing the impact on the environment from a development project or activity.

Civic uses: Land and/or facilities owned and operated by the Town of Flower Mound, including public works projects.

Collector: A thoroughfare as defined and identified on the Town's adopted Thoroughfare Master Plan.

Conservation Development: A residential development project in which dwelling units are clustered on smaller lots than would otherwise be allowed within tracts of land zoned A, Agricultural District and/or SF-E, Single-Family Estate District, for the purpose of preserving open or natural lands as an integral component of the development. The net density of development on tracts of land zoned A, Agricultural District, shall remain one unit per two acres and the net density of development of tracts of land zoned SF-E, Single Family Estate District, shall remain one unit per acre. Conserved lands shall be placed in a conservation easement.

Conservation Easement: A voluntary and permanent deed restriction, which limits the development and/or subdivision of property for the purpose of protecting conservation values in the land. The easement is a recorded restriction, applies to all subsequent owners and may be held by either (1) a non-profit entity or organization that manages open space, such as a land trust or other qualified entity, pursuant to Section 170(h) of the Internal Revenue Code, as amended, or (2) a governmental entity.

Contributed capacity from elevated water storage: The rate of flow required to drain seventy-five percent (75.0%) of available elevated water storage in an eight-hour period, with the remaining twenty-five percent (25.0%) of storage capacity being reserved for fire protection.

Design Storm: A storm equivalent to a five-year recurrence interval and a one-hour duration rain event.

Development application or project: Any application or project for the development of land that requires the submission of a Master Plan amendment, zoning amendment, development plan, record plat, replat and/or nonresidential site plan except for minor plat, amended plat, replat that does not increase density, or an institutional or civic use.

Developed Floodplain: Any area defined as a floodplain within the FEMA 100-year floodplain and which has been channelized or the land within these areas have been graded, filled, or otherwise disturbed.

Ecological Integrity: An ecosystem exhibits integrity if, when subjected to disturbances (natural or artificial), it sustains and organizes a self-correcting ability to recover to a normal vegetative growth for that system.

Environmentally Sensitive Area (“ESA”): Designated areas that include one of the following classifications: Upland Habitat, Riparian Habitat, Waters of the State, Prairie Habitat, Developed and Undeveloped Floodplain.

Existing lot: A lot for which a building permit has been issued, regardless of whether the structure or structures on the lot are occupied.

Habitat Biodiversity: Refers to the variety and variability among living organisms and the ecological complexes in which they occur. Diversity can be defined as the number of different items and their relative frequencies.

HCM: The latest edition of the *Highway Capacity Manual* (HCM) published by the Transportation Research Board.

Institutional uses: Land and/or facilities owned and operated by the federal government, state government, county government, and/or a political subdivision of the state, including public works projects, or land and/or facilities utilized for religious uses.

Intersection: The juncture of two or more thoroughfares.

Land use planning districts: The four land use planning districts identified on the Town’s adopted Land Use Plan map, which include the Lakeside Business District, the Long Prairie District, the Cross Timbers Conservation Development District and the Denton Creek District.

Level of Service (LOS): The measure of the quality of transportation facilities and expressed as a grade of A, B, C, D, E or F, with the grade being determined by the techniques described in the latest edition of the Highway Capacity Manual (HCM) published by the Transportation Research Board.

Link: The portion of a thoroughfare between two intersections.

Lot inventory: All residential lots which exist by virtue of a development plan approved by the Town and for which a building permit has not been issued.

Prairie Habitat: Areas designated as containing onsite predominate distributions of climax or mid-successional native grass species underlain by intact (non-eroded) prairie and savannah soil types.

Priority 1 calls: As defined in the databases maintained by the Town's Police, Fire and Emergency Medical Services.

Priority 2 calls: As defined in the databases maintained by the Town's Police, Fire and Emergency Medical Services.

Priority 3 calls: As defined in the databases maintained by the Town's Police and Fire Departments.

Programmed capacity improvements: Capital infrastructure capacity improvements programmed for commencement of construction within the then current or the next fiscal year of the Town's adopted Five-Year Capital Improvement Program.

Project Traffic: For the determination of adequate transportation infrastructure, project traffic is the projected traffic volumes from the proposed development based on trip rates identified in the *Trip Generation Manual* and is distributed and assigned to the study area based on projected conditions for the build-out year.

Proposed development: Any application or project for the development of land that requires the submission of a Master Plan amendment, zoning amendment, development plan, record plat and/or nonresidential site plan except for a minor plat, amended plat, replat that does not increase density, or an institutional or civic use.

Response times: The time that elapses between the time a call for police, fire or emergency service is received and the time the responding unit arrives at the scene or the location from which the call originated.

Riparian Habitat: Areas designated within the FEMA 100-year floodplain or interconnected and adjacent to wetland, tree and understory vegetation and including significant stands of predominately native water related habitat. These areas include wetlands.

SMARTGrowth Criteria: Constitutive development criteria to evaluate the community-wide impacts of proposed development applications and projects for the purpose of ensuring that development occurs in a manner that contributes to the attainment of community character and quality of life objectives.

Study year: For the determination of adequate transportation infrastructure, the study year is the initial calendar year in which project traffic is expected to occur.

TNRCC: The Texas Natural Resources Conservation Commission.

Topographical slopes: The vertical elevation change in a landform divided by the horizontal distance covered within the slope (note: the percentage of slope should not be confused with the angle of the slope related to the horizontal plane).

Traffic capacity: The maximum number of vehicles that a given transportation facility is designed to serve at an established Level of Service (LOS).

Tree Complex: A complex is the assemblage of physical environmental factors defining the vegetative conditions and species composition over a uniform area of land type.

Trip Generation Manual: The latest edition of the *Trip Generation Manual* published by the Institute of Transportation Engineers.

Undeveloped Floodplain: Areas within the FEMA 100-year floodplain, or other floodplain that are undeveloped and in their natural state.

Upland Habitat: Areas, a minimum of ten (10) acres in size, equal to or exceeding 50 trees per acre, which contain a predominate matrix of tree species identified in the Town's Protected Tree List. Any tree species that makes up over thirty percent (30%) of the population within a complex is considered to be the predominate species.

Waters of the State: Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or costal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

Water Quality Standards: State-adopted and EPA-approved ambient standards for water bodies. The standards prescribe the use of the water body and establish the water quality criteria that must be met to protect designated uses.

Wetlands: Jurisdictional wetlands as defined by the federal Clean Water Act and the standards and guidelines in use by the United States Army Corps of Engineers, including the Federal Manual for Identifying and Delineating Jurisdictional Wetlands.

Wildlife Corridors: Linear protected areas that serve as biological connecting corridors between larger wildlife habitat areas, which allows native wildlife to move uninterrupted from one area to another.

Wildlife Habitat: The places where a population of wild animal species lives and the constitutive environmental surroundings, both living and non-living.

SMARTGrowth ANALYSIS

A. ADEQUATE PUBLIC INFRASTRUCTURE

1. WATER SUPPLY

A. PURPOSE: The purpose of this criterion is to provide adequate public infrastructure to serve the demands created by new development without degrading or diminishing service levels to existing development, while also fostering a balanced tax base through economic development to ensure Flower Mound's long-term financial ability to respond to the service demands of both new and existing development without placing a disproportionate tax burden on homeowners.

B. CRITERION: Water Supply. No development application or project shall be approved if the Town has exceeded or is projected to exceed ninety-five percent (95.0%) of its treated water supply, based upon its then available treated water supply plus any additional supply programmed for commencement of construction within the then current or the next fiscal year of the Town's Capital Improvement Program, with the remaining five percent (5.0%) of supply being reserved for future economic development, institutional or civic uses.

C. METHODOLOGY: Total available supply shall be the sum of contracted and available treated water supply from Dallas Water Utilities (DWU), contracted and available treated water supply from the Upper Trinity Regional Water District (UTRWD), and any treated water supply projected to be available from programmed capacity improvements. Net available supply shall be equal to total available supply less 5.0% to be reserved for economic development, institutional or civic uses.

Total projected demand shall be the sum of projected maximum day demand (MDD) for all existing lots, and approved but not constructed development, plus the projected MDD for the proposed development. For proposed development to be approved, total projected demand must not exceed net available supply.

D. INFORMATION NEEDED FOR ANALYSIS: The information needed to perform the analysis necessary to determine compliance with this criterion is shown on Table 1 along with who is responsible for providing the information, the source of that information and when the information is to be provided during the application process.

E. APPLICATION: For residential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, and record plats, with capacity being reserved at record plat approval. For nonresidential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, record plats and site plans, with capacity being reserved at site plan approval.

TABLE 1

**Town of Flower Mound SMARTGrowth Analysis
Water Supply**

<u>Information Needed</u>	<u>Who Provides</u>	<u>How Provided</u>	<u>When Provided</u>
CAPACITY			
- UTRWD (Contract)	Town by Contract	20 MGD**	Initial Submittal
- DWU (Contract)	Town by Contract	11 MGD**	Initial Submittal
- Programmed Capacity (CIP) ++	Town by Contract	10 MGD**	Initial Submittal
- Total Capacity		41 MGD	
DEMAND			
- Existing Baseline MDD	Town	29.32 MGD*	Initial Submittal
- Res. Demand/Unit	Town	Water Master Plan	Initial Submittal
- Res. Lot Inventory Demand	Town	Compiled by Approved Applications +	Initial Submittal
- Res. Building Permits Demand	Town	Compiled by Permits***	Initial Submittal
- Non Res. Inventory Demand	Town	Compiled by Permits***	Initial Submittal
- Proposed Res. Demand	Applicant	Number of Lots	Initial Submittal
- Proposed Non Res. Demand	Applicant	Use Type or Historical Data	Initial Submittal

MDD = Maximum Day Demand

*Baseline MDD will be 29.32 MGD from 2006 until historical water records indicate that the existing baseline demand has been exceeded. Baseline MDD will be reviewed and updated in January of each year.

**As of July 1, 2002.

*** Permits issued subsequent to date of most updated baseline MDD.

+ Approved applications for Master Plan amendments, zoning amendments, development plans, record plats, and/or site plans.

++ Programmed capacity includes capital infrastructure capacity improvements programmed for commencement of construction within the then current or the next fiscal year of the Town's adopted Five-Year Capital

Demand Per Land Use Type:

Land Use Type	Demand gpd/ac	Demand gpd/ac	Demand gpd/dwelling unit
Single Family	N/A	N/A	500
Multi-Family	3.47	5,000	NA
Retail	0.56	800	NA
Campus Commercial/Industrial			
Medium Office	3.47	5,000	NA
Medium Commercial	2.01	2,900	NA
Warehouse	0.56	800	NA
Commercial/Industrial	0.97	1,400	NA
Office	2.43	3,500	NA
School	0.97	1,400	NA
Churches	0.56	800	NA
Park	0.14	200	NA
Utility	0.00	0	NA
Open Space	0.00	0	NA

The projected build out Average Day Demand is approximately 29 MGD.

Maximum Day Demand (MDD)

Maximum day demand is generally expressed as a ratio of the average day demand. Historical data was used to determine this ratio. The maximum day demand is also dependent on precipitation but only during the summer months. It is possible to experience a dry-year-type maximum day demand during a wet year because of a short-term dry period in the summer months. The ratio for the maximum day demand to the average day demand in a normal year is 1:1.91. The projected build out Maximum Day Demand is approximately 62 MGD.

Peak Hour Demand (PHD)

Peak-hour demand is determined by creating a diurnal curve for the day that maximum demand occurs at build-out. The value is expressed as a ratio of peak-hour demand to maximum-day demand. The build out peak-hour demand is approximately 109 MGD. The projected build out Maximum Day Demand is approximately 62 MGD. The resulting ratio is 1:1.75.

Note: This information is taken from the 2009 Water System Master Plan prepared by Kellogg Brown & Root, Inc. and adopted by the Town Council on August 17, 2009.

2. WATER PUMPING CAPACITY

- A. PURPOSE:** The purpose of this criterion is to provide adequate public infrastructure to serve the demands created by new development without degrading or diminishing service levels to existing development, while also fostering a balanced tax base through economic development to ensure Flower Mound's long-term financial ability to respond to the service demands of both new and existing development without placing a disproportionate tax burden on homeowners.
- B. CRITERION: Water Pumping Capacity.** No development application or project shall be approved if the Town has exceeded or is projected to exceed ninety-five percent (95.0%) of its rated water pumping capacity in any pressure plane during peak-hour demand with the largest pump at each pump station out-of-service, based upon the then available rated pumping capacity and contributed capacity from then available elevated storage and any additional pumping capacity or contributed elevated storage capacity programmed for commencement of construction within the then current or the next fiscal year of the Town's Capital Improvement Program, with the remaining five percent (5.0%) of rated pumping capacity being reserved for future economic development, institutional or civic uses.
- C. METHODOLOGY:** Total available pumping capacity shall be determined on the basis of individual pressure planes and shall be the sum of the rated name plate pumping capacity of each pump station (in MGD) with the largest pump out of service at each station, any pumping capacity projected to be available from programmed capacity improvements, and contributed capacity from elevated storage. Net available pumping capacity shall be equal to total available pumping capacity less five percent (5.0%) to be reserved for economic development, institutional or civic uses.
- Total projected demand shall be the sum of projected peak-hour demand (in MGD) for all existing lots and approved but not constructed development, plus the projected peak-hour demand for the proposed development. For proposed development to be approved, total projected demand must not exceed net available pumping capacity.
- D. INFORMATION NEEDED FOR ANALYSIS:** The information needed to perform the analysis necessary to determine compliance with this criterion is shown on Table 2 along with who is responsible for providing the information, the source of that information and when the information is to be provided during the application process.
- E. APPLICATION:** For residential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, and record plats, with capacity being reserved at record plat approval. For nonresidential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, record plats and site plans, with capacity being reserved at site plan approval

TABLE 2

**Town of Flower Mound –SMARTGrowth Analysis
Water Pumping Capacity**

<u>Information Needed</u>	<u>Who Provides</u>	<u>How Provided</u>	<u>When Provided</u>
CAPACITY			
– Existing Pump Capacity	Town	Water Master Plan	Initial Submittal
– Programmed Pump Capacity +	Town	Town CIP	Initial Submittal
DEMAND			
– Existing Baseline PHD	Town	63.8 MGD*	Initial Submittal
– Res. Demand/Unit	Town	Water Master Plan	Initial Submittal
– Residential Lot Inventory PHD	Town	Compiled by Approved Applications **	Initial Submittal
– Residential Building Permits	Town	Compiled by Permits***	Initial Submittal
– Non-Residential Inventory PHD	Town	Compiled by Permits ***	Initial Submittal
– Proposed Res. PHD	Applicant	Number of Lots	Initial Submittal
– Proposed Non Res. PHD	Applicant	Historical Data or Type of Use	Initial Submittal

PHD = Peak Hour Demand

* Baseline PHD will be 63.8 MGD from 2006 until historical records indicate that the existing baseline demand has been exceeded. Baseline PHD will be reviewed and updated in January of each year.

** Approved applications for Master Plan amendments, zoning amendments, development plans, record plats, and/or site plans.

*** Permits issued subsequent to date of most updated baseline PHD.

+ Programmed capacity includes capital infrastructure capacity improvements programmed for commencement of construction within the then current or the next fiscal year of the Town’s adopted Five-Year Capital Improvement Program.

Demand Per Land Use Type:

Land Use Type	Demand gpd/ac	Demand gpd/ac	Demand gpd/dwelling unit
Single Family	N/A	N/A	500
Multi-Family	3.47	5,000	NA
Retail	0.56	800	NA
Campus Commercial/Industrial			
Medium Office	3.47	5,000	NA
Medium Commercial	2.01	2,900	NA
Warehouse	0.56	800	NA
Commercial/Industrial	0.97	1,400	NA
Office	2.43	3,500	NA
School	0.97	1,400	NA
Churches	0.56	800	NA
Park	0.14	200	NA
Utility	0.00	0	NA
Open Space	0.00	0	NA

The projected build out Average Day Demand is approximately 29 MGD.

Maximum Day Demand (MDD)

Maximum day demand is generally expressed as a ratio of the average day demand. Historical data was used to determine this ratio. The maximum day demand is also dependent on precipitation but only during the summer months. It is possible to experience a dry-year-type maximum day demand during a wet year because of a short-term dry period in the summer months. The ratio for the maximum day demand to the average day demand in a normal year is 1:1.91. The projected build out Maximum Day Demand is approximately 62 MGD.

Peak Hour Demand (PHD)

Peak-hour demand is determined by creating a diurnal curve for the day that maximum demand occurs at build-out. The value is expressed as a ratio of peak-hour demand to maximum-day demand. The build out peak-hour demand is approximately 109 MGD. The projected build out Maximum Day Demand is approximately 62 MGD. The resulting ratio is 1:1.75.

Note: This information is taken from the 2009 Water System Master Plan prepared by Kellogg Brown & Root, Inc. and adopted by the Town Council on August 17, 2009.

3. WASTEWATER TREATMENT CAPACITY

- A. **PURPOSE:** The purpose of this criterion is to provide adequate public infrastructure to serve the demands created by new development without degrading or diminishing service levels to existing development, while also fostering a balanced tax base through economic development to ensure Flower Mound's long-term financial ability to respond to the service demands of both new and existing development without placing a disproportionate tax burden on homeowners.
- B. **CRITERION: Wastewater Treatment Capacity.** No development application or project shall be approved if the Town has exceeded or is projected to exceed ninety-five percent (95.0%) of its wastewater treatment capacity, based upon its then available treatment capacity and any additional treatment capacity programmed for commencement of construction within the then current or the next fiscal year of the Town's Capital Improvement Program, with the remaining five percent (5.0%) of wastewater treatment capacity being reserved for future economic development, institutional or civic uses. This criterion is not applicable if a proposed development's wastewater flows will not be treated by the Town's wastewater treatment plant or the Trinity River Authority's Denton Creek Regional Wastewater System.
- C. **METHODOLOGY:** Total available treatment capacity for the Town's wastewater treatment plant shall be the sum of the TCEQ permitted discharge flow (in MGD) from the treatment plant and any treatment capacity projected to be available from programmed capacity improvements. Net available treatment capacity shall be equal to total available treatment capacity less 5.0% to be reserved for economic development, institutional or civic uses.

Total projected demand for areas served by the Town's wastewater treatment plant shall be the sum of projected wastewater flows for all existing lots, and approved but not constructed development, plus the projected wastewater flows for the proposed development. For proposed development to be approved, total projected demand must not exceed net available treatment capacity.

Total available treatment capacity for the Denton Creek and Prairie Vista Districts, as defined in the adopted Land Use Plan, shall be the sum of contracted and available treatment capacity from the Trinity River Authority's Denton Creek Regional Wastewater System and any treatment capacity projected to be available from programmed capacity improvements. Net available treatment capacity for the Denton Creek and Prairie Vista Districts shall be equal to total treatment capacity less 5.0% to be reserved for economic development, institutional or civic uses.

Total projected demand for areas within the Denton Creek and Prairie Vista Districts shall be the sum of projected wastewater flows for all existing lots and uses within the District, and approved but not constructed development within the District, plus the projected wastewater flows for the proposed development. For proposed development to be approved, total projected demand must not exceed net available treatment capacity.

INFORMATION NEEDED FOR ANALYSIS: The information needed to perform the analysis necessary to determine compliance with this criterion is shown on Table 3 along with who is responsible for providing the information, the source of that information and when the information is to be provided during the application process.

- E. APPLICATION:** For residential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, and record plats, with capacity being reserved at record plat approval. For nonresidential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, record plats and site plans, with capacity being reserved at site plan approval.

TABLE 3

**Town of Flower Mound –SMARTGrowth Analysis
Wastewater Treatment Plant Capacity**

<u>Information Needed</u>	<u>Who Provides Information</u>	<u>How is Information Obtained</u>	<u>When is Information Needed</u>
CAPACITY			
– Existing wastewater treatment plant capacity	Town	Wastewater Master Plan	Initial Submittal
– Programmed capacity +	Town	Town CIP	Initial Submittal
DEMAND			
– Existing flows	Town	Wastewater Treatment Plant Records	Initial Submittal
– Projected flows by lot inventory	Town	Wastewater Master Plan (updated periodically based on actual flows)	Initial Submittal
– Projected flows for proposed new residential development	Town	Wastewater Master Plan (flows per lot - updated periodically)	Initial Submittal
– Location, number of lots, and acreage of proposed new residential development	Applicant	Applicant	Initial Submittal
– Location, size and projected flows for proposed new non-residential development	Applicant	Historical Data or Type of Use	Initial Submittal

+ Programmed capacity includes capital infrastructure improvements programmed for commencement of construction within the then current or the next fiscal year of the Town’s adopted Five-Year Capital Improvement Program.

4. WASTEWATER LIFT STATION PUMPING CAPACITY

- A. PURPOSE:** The purpose of this criterion is to provide adequate public infrastructure to serve the demands created by new development without degrading or diminishing service levels to existing development, while also fostering a balanced tax base through economic development to ensure Flower Mound's long-term financial ability to respond to the service demands of both new and existing development without placing a disproportionate tax burden on homeowners.
- B. CRITERION: Wastewater Lift Station Pumping Capacity.** No development application or project shall be approved if the Town has exceeded or is projected to exceed ninety-five percent (95.0%) of the rated pumping capacity of any lift station serving the development during the maximum wet weather flow event with the largest pump at each lift station out-of-service and without considering wastewater interceptor capacity, based upon the then available rated pumping capacity of each lift station and any additional pumping capacity programmed for commencement of construction within the then current or the next fiscal year of the Town's Capital Improvement Program, with the remaining five percent (5.0%) of rated pumping capacity of each lift station being reserved for future economic development, institutional or civic uses.
- C. METHODOLOGY:** Total available lift station pumping capacity shall be the sum of the rated name plate pumping capacity of each lift station serving the proposed development with the largest pump out of service and any pumping capacity projected to be available from programmed capacity improvements. Net available lift station pumping capacity shall be equal to total available lift station pumping capacity less 15.0% to be reserved for economic development, institutional or civic uses.
- Total projected demand shall be determined on the basis of a five-year design storm for peak hour wet weather wastewater flows and shall be the sum of projected wastewater flows for all existing lots served by each lift station serving the proposed development, and approved but not constructed development that will be served by each lift station serving the proposed development, plus the projected wastewater flows for the proposed development. For proposed development to be approved, total projected demand must not exceed net available lift station pumping capacity.
- D. INFORMATION NEEDED FOR ANALYSIS:** The information needed to perform the analysis necessary to determine compliance with this criterion is shown on Table 4 along with who is responsible for providing the information, the source of that information and when the information is to be provided during the application process.
- E. APPLICATION:** For residential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, and record plats, with capacity being reserved at record plat approval. For nonresidential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, record plats and site plans, with capacity being reserved at site plan approval.

1TABLE 4

**Town of Flower Mound – SMARTGrowth Analysis
Lift Station Capacity**

<u>Information Needed</u>	<u>Who Provides Information</u>	<u>How is Information Obtained</u>	<u>When is Information Needed</u>
CAPACITY			
– Existing capacity of lift stations	Town	Wastewater Master Plan	Initial Submittal
– Programmed capacity +	Town	Town CIP	Initial Submittal
DEMAND			
– Existing flows by interceptor/drainage basin	Town	Wastewater Master Plan updated to include newly constructed lots by subdivision (updated periodically)	Initial Submittal
– Projected flows by lot inventory by drainage basin	Town	Wastewater Master Plan updated to include new approved developments (lots without building permits - updated periodically)	Initial Submittal
– Projected flows for proposed new residential development	Town	Wastewater Master Plan (flow per lot - updated periodically)	Initial Submittal
– Location, number of lots, and acreage of proposed new residential development	Applicant	Applicant	Initial Submittal
– Location, size and projected flows for proposed new non-residential development	Applicant	Historical Data or Type of Use	Initial Submittal

+ Programmed capacity includes capital infrastructure capacity improvements programmed for commencement of construction within the then current or the next fiscal year of the Town’s adopted Five-Year Capital Improvement Program.

TOWN OF FLOWER MOUND
LIVING UNIT EQUIVALENT (LUE) FLOW CALCULATIONS

Assumptions and Equations																						
<u>Sanitary Flow:</u>																						
per capita contribution rate	75 gpcd																					
no. people per living unit	3.2 People/LUE																					
unit sanitary flow	240 gpd/LUE																					
sanitary peaking factor	1.9																					
peak units sanitary flow rate	456 gpd/LUE																					
	A																					
<u>I/I Flow:</u>																						
average aerial I/I rate	224 gal/acre/day																					
I/I peaking factor	4.3																					
Peak aerial I/I rate	970 gal/acre/day																					
no. living units per acre	2.1 LUE/acre																					
peak unit I/I flow	460 gpd/LUE																					
	B																					
<u>Total Peak Flow Calculation:</u>																						
OR >>>	<table border="1" style="border-collapse: collapse; margin-right: 5px;"> <tr> <td style="text-align: center;">916</td> <td style="padding: 0 5px;">gpd/LUE</td> </tr> <tr> <td style="text-align: center;">1090</td> <td style="padding: 0 5px;">LUE/MGD</td> </tr> </table> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">C =A+B</div> <div>D =1,000,000/C</div> </div>	916	gpd/LUE	1090	LUE/MGD																	
916	gpd/LUE																					
1090	LUE/MGD																					
<u>Example Peak Flow Calculations:</u>																						
<table border="1" style="border-collapse: collapse; width: 100%;"> <thead> <tr> <th rowspan="2">No. Lots</th> <th rowspan="2">No. Acres</th> <th colspan="3">Peak Flows (MGD)</th> </tr> <tr> <th>Sanitary</th> <th>I/I</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">$Q1=(XxA)/1E6$</td> <td style="text-align: center;">$Q2=(YxB)/1E6$</td> <td style="text-align: center;">$Q1+Q2$</td> </tr> <tr> <td style="text-align: center;">100</td> <td style="text-align: center;">50</td> <td style="text-align: center;">0.046</td> <td style="text-align: center;">0.086</td> <td style="text-align: center;">0.132</td> </tr> </tbody> </table>					No. Lots	No. Acres	Peak Flows (MGD)			Sanitary	I/I	Total	X	Y	$Q1=(XxA)/1E6$	$Q2=(YxB)/1E6$	$Q1+Q2$	100	50	0.046	0.086	0.132
No. Lots	No. Acres	Peak Flows (MGD)																				
		Sanitary	I/I	Total																		
X	Y	$Q1=(XxA)/1E6$	$Q2=(YxB)/1E6$	$Q1+Q2$																		
100	50	0.046	0.086	0.132																		
Platted lot equivalencies		100.0																				
Capacities reserve for Economic Development		5%																				
Manning's Equation for Pipe Capacity Calculations																						
For pipe calculations in MGD: $Q_{capacity}=22.82(K/n)(0.3048D/12)^{(8/3)}S$ D in inches; S in ft/ft																						
Source: Metcalf & Eddy Wastewater Engineering: collection & Pumping of Wastewater, Table 2-5																						
Manning's 'n' =	0.014																					
d/D =	0.9 >>>	K' = 0.33																				

5. WASTEWATER INTERCEPTOR CAPACITY

- A. PURPOSE:** The purpose of this criterion is to provide adequate public infrastructure to serve the demands created by new development without degrading or diminishing service levels to existing development, while also fostering a balanced tax base through economic development to ensure Flower Mound's long-term financial ability to respond to the service demands of both new and existing development without placing a disproportionate tax burden on homeowners.
- B. CRITERION: Wastewater Interceptor Capacity.** No development application or project shall be approved if the Town has exceeded or is projected to exceed ninety-five percent (95.0%) of the maximum capacity at any location or point on any major wastewater interceptor serving the development and identified in the Town's Wastewater Master Plan during the maximum wet weather flow event, without surcharging any manhole, based upon the then available maximum capacity of each major interceptor and any additional interceptor capacity programmed for commencement of construction within the then current or the next fiscal year of the Town's Capital Improvement Program, with the remaining five percent (5.0%) of wastewater interceptor capacity being reserved for future economic development, institutional or civic uses.
- C. METHODOLOGY:** Total available wastewater interceptor capacity shall be the sum of the maximum capacity of each major interceptor serving the proposed development (as such capacity is defined in the Town's adopted Wastewater Master Plan for each interceptor segment) and any interceptor capacity projected to be available from programmed capacity improvements. Net available wastewater interceptor capacity shall be equal to total available wastewater interceptor capacity less five percent (5.0%) to be reserved for economic development, institutional or civic uses.
- Total projected demand shall be determined on the basis of a five-year design storm for peak hour wet weather wastewater flow and shall be the sum of projected wastewater flows for all existing lots and approved but not constructed development that will be served by each major interceptor serving the proposed development, plus the projected wastewater flows for the proposed development. For proposed development to be approved, total projected demand must not exceed net available wastewater interceptor capacity.
- D. INFORMATION NEEDED FOR ANALYSIS:** The information needed to perform the analysis necessary to determine compliance with this criterion is shown on Table 5 along with who is responsible for providing the information, the source of that information and when the information is to be provided during the application process.
- E. APPLICATION:** For residential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, and record plats, with capacity being reserved at record plat approval. For nonresidential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, record plats and site plans, with capacity being reserved at site plan approval.

TABLE 5

**Town of Flower Mound – SMARTGrowth Analysis Evaluation
Wastewater Interceptor Capacity**

<u>Information Needed</u>	<u>Who Provides Information</u>	<u>How is Information Obtained</u>	<u>When is Information Needed</u>
CAPACITY			
– Existing capacity of system by interceptor/drainage basin	Town	Wastewater Master Plan by interceptor/drainage area	Initial Submittal
– Programmed capacity of system by drainage basin +	Town	Town CIP by interceptor/drainage area	Initial Submittal
DEMAND			
– Existing flows by interceptor/drainage basin	Town	Wastewater Master Plan updated to include newly constructed lots by subdivision (updated periodically)	Initial Submittal
– Projected flows by lot inventory by drainage basin	Town	Wastewater Master Plan updated to include new approved developments (lots without building permits - updated periodically)	Initial Submittal
– Projected flows for proposed new residential development	Town	Wastewater Master Plan (flow per lot - updated periodically)	Initial Submittal
– Location, number of lots, and acreage of proposed new residential development	Applicant	Applicant	Initial Submittal
– Location, size and projected flows for proposed new non-residential development	Applicant	Applicant (case-by-case basis)	Initial Submittal

+ Programmed capacity includes capital infrastructure capacity improvements programmed for commencement of construction within the then current or the next fiscal year of the Town’s adopted Five-Year Capital Improvement Program

**TOWN OF FLOWER MOUND
LIVING UNIT EQUIVALENT (LUE) FLOW CALCULATIONS**

Assumptions and Equations

Sanitary Flow:

per capita contribution rate	75 gpcd	
no. people per living unit	3.2 people/LUE	
<hr/>		
unit sanitary flow	240 gpd/LUE	
sanitary peaking factor	1.9	
<hr/>		
peak units sanitary flow rate	456 gpd/LUE	A

I/I Flow:

average aerial I/I rate	224 gal/acre/day	
I/I peaking factor	4.3	
<hr/>		
Peak aerial I/I rate	970 gal/acre/day	
no. living units per acre	2.1 LUE/acre	
<hr/>		
peak unit I/I flow	460 gpd/LUE	B

Total Peak Flow:

	916	gpd/LUE	C	=A+B
OR>>>	1090	LUE/MGD	D	=1,000,000/C

Example Peak Flow Calculations:

No. Lots	No. Acres	Peak Flows (MGD)		
		Sanitary	I/I	Total
X	Y	$Q1=(XxA)/1E6$	$Q2=(YxB)/1E6$	$Q1+Q2$
100	50	0.046	0.086	0.132

Platted lot equivalencies 100.0

Capacities reserve for Economic Development 5%

Manning's Equation for Pipe Capacity Calculations

For pipe calculations in MGD: $Q_{capacity}=22.82(K'/n)(0.3048D/12)^{(8/3)}S$ D in inches; S in ft/ft

Source: Metcalf & Eddy Wastewater Engineering: collection & Pumping of Wastewater, Table 2-5

Manning's 'n' = 0.014
d/D = 0.9 >>> K' = 0.33

6. TRANSPORTATION – TOWN ARTERIAL AND COLLECTOR LINKS

- A. PURPOSE:** The purpose of this criterion is to provide adequate public infrastructure to serve the demands created by new development without degrading or diminishing service levels to existing development, while also fostering a balanced tax base through economic development to ensure Flower Mound’s long-term financial ability to respond to the service demands of both new and existing development without placing a disproportionate tax burden on homeowners.
- B. CRITERION: Transportation - Town Arterial and Collector Links.** No development application or project shall be approved if the Level of Service (LOS) on any impacted Town arterial or collector link is then currently or is projected to be worse than LOS “C” during peak-hour demand, based upon the then available traffic capacity of each such link and any capacity improvements programmed for commencement of construction within the then current or the next fiscal year of the Town’s Capital Improvement Program. Economic development, institutional, civic uses, and residential replats containing four (4) or fewer lots are to be exempt from this criterion.
- C. METHODOLOGY:** Total available traffic capacity on any Town arterial or collector link shall be determined by use of the Transcad computer model. Impacted links for a development project will be determined by use of such computer model, with trip generation data based on applicable data contained in the ITE Trip Generation Manual. The model will determine the distribution/assignment of traffic related to each such development project. An impacted link will be any such link for which the projected trip generation from the proposed project exceeds five percent (5%) of the link’s peak-hour capacity at LOS “C.”
- Total projected demand shall be the sum of existing background traffic volumes, projected traffic volumes from all existing lots and approved but not constructed development, and projected traffic volumes from the proposed development. For proposed development to be approved, trip generation from the proposed development must not reduce the Level of Service on any Town arterial or collector link below LOS “C” during peak-hour demand.
- D. INFORMATION NEEDED FOR ANALYSIS:** The information needed to perform the analysis necessary to determine compliance with this criterion is shown on Table 6 along with who is responsible for providing the information, the source of that information and when the information is to be provided during the application process.
- E. APPLICATION:** For residential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, and record plats, with capacity being reserved at record plat approval. For nonresidential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, record plats and site plans, with capacity being reserved at site plan approval.
- F. FEES:** All costs incurred by the Town to perform a transportation analysis to evaluate a proposed development in relation to its compliance with the Transportation

SMARTGrowth Criteria will be paid by the development applicant. Said applicant shall deposit the estimated cost to perform such analysis with the Town prior to said analyses being performed. If the actual cost of any analysis is more than the estimated cost for same, the applicant shall pay the additional sum to the Town prior to the analysis being considered complete. Should the actual cost of an analysis be less than the anticipated cost for same, the Town will reimburse the applicant the difference between the estimated and actual cost of the analysis.

TABLE 6

**Town of Flower Mound – SMARTGrowth Analysis
Transportation Level of Service**

<u>Information Needed</u>	<u>Who Provides Information</u>	<u>How is Information Obtained</u>	<u>When is Information Needed</u>
Proposed Project			
– Land Use Categories	Applicant	Application	Initial Submittal
– Proposed Location and Access	Applicant	Application	Initial Submittal
– Project Phasing (Opening and Buildout)	Applicant	Application	Initial Submittal
Determination of Exemption			
– Economic Development	Town	Determination of Eligibility	Completion of Initial Review
– Civic or Institutional Use	Town	Determination of Eligibility	Completion of Initial Review
Establish Evaluation Inputs			
– Study Year	Town	Interpretation of Project Phasing	Project Review Period
– Programmed Capacity +	Town	CIP Project List	Project Review Period
– Baseline Level of Service	Town	Transcad Model	Project Review Period
SMARTGrowth-Evaluation			
– Trip Generation	Town	ITE Trip Generation	Project Review Period
– Trip Distribution	Town	Transcad Model	Project Review Period
– Traffic Assignment	Town	Transcad Model	Project Review Period
– Level of Service Evaluation	Town	Transcad Model	Project Review Period

+ Programmed capacity includes capital infrastructure improvements programmed for commencement of construction within the then current or the next fiscal year of the Town’s adopted Five-Year Capital Improvement Program and capacity improvements for which the Texas Department of Transportation has awarded a construction contract and issued notice to proceed with the construction thereof.

Data from the ITE *Trip Generation Manual*, 6th Edition

Land Use	ITE Code	Independent Variable	AM Peak		PM Peak		24-Hour	
			In	Out	In	Out	In	Out
Light Industrial	110	Square Footage	0.81	0.11	0.12	0.86	3.49	3.49
Single Family Detached Housing	210	Dwelling Units	0.19	0.56	0.65	0.35	4.79	4.79
Apartment	220	Dwelling Units	0.08	0.43	0.42	0.20	3.32	3.32
Hotel	310	Rooms	0.34	0.22	0.32	0.29	4.16	4.16
Office	710	Square Footage	1.37	0.19	0.25	1.24	5.51	5.51
Shopping Center	820	Square Footage	0.63	0.40	1.80	1.94	21.46	21.46

THOROUGHFARE CAPACITY SUMMARY

ROADWAY TYPE	LEVEL OF SERVICE "C"		LEVEL OF SERVICE "D"		LEVEL OF SERVICE "E"	
	*DAILY SERVICE VOLUME RANGE	HOURLY SERVICE VOLUME RANGE PER LANE	*DAILY SERVICE VOLUME RANGE	HOURLY SERVICE VOLUME RANGE PER LANE	*DAILY SERVICE VOLUME RANGE	HOURLY SERVICE VOLUME RANGE PER LANE
A8D***	52 - 58,000	780 - 880**	58 - 66,000	880 - 990**	66 - 73,000	990 - 1100**
A6D***	39 - 44,000	780 - 880**	44 - 49,000	880 - 990**	49 - 55,000	990 - 1100**
A4D***	21 - 23,000	620 - 700**	23 - 26,000	700 - 775**	26 - 29,000	775 - 875**
MC4U	17 - 18,000	500 - 550**	18 - 21,000	550 - 625**	21 - 23,000	625 - 675**
C4U	15 - 17,000	440 - 500**	17 - 18,000	500 - 550**	18 - 21,000	550 - 625**
C2U	6 - 7,000	350 - 425**	7 - 8,000	425 - 500**	8 - 9,500	500 - 575**

* Level of Service with "K" =0.10 and "D" =60%/40%

** Assumes signal progression; no parking; access management; increased intersection capacity and grade separation

*** Assumes 12' lanes and divided roadway; A8D = arterial 8 lane divided; A6D = 6 lane divided; A4D = 4 lane divided

Note: Metropolitan collector MC4U = 4 lane undivided (12' lanes); C4U = collector 4 lane undivided (11' lanes)

Source: The latest edition of the Highway Capacity Manual (HCM) published by the Transportation Research Board.

7. TRANSPORTATION – TOWN ARTERIAL AND COLLECTOR INTERSECTIONS

- A. PURPOSE:** The purpose of this criterion is to provide adequate public infrastructure to serve the demands created by new development without degrading or diminishing service levels to existing development, while also fostering a balanced tax base through economic development to ensure Flower Mound’s long-term financial ability to respond to the service demands of both new and existing development without placing a disproportionate tax burden on homeowners.
- B. CRITERION: Transportation - Town Arterial and Collector Intersections.** No development application or project shall be approved if the Level of Service (LOS) on any impacted Town arterial or collector intersection is then currently or is projected to be worse than LOS “C” during peak-hour demand, based upon the then available traffic capacity of each such intersection and any capacity improvements programmed for commencement of construction within the then current or the next fiscal year of the Town’s Capital Improvements Program. Economic development, institutional, civic uses, and residential replats containing four (4) or fewer lots are to be exempt from this criterion.
- C. METHODOLOGY:** Total available traffic capacity on any Town arterial or collector intersection shall be determined by use of the Transcad computer model. Impacted intersections for a development project will be determined by use of such computer model, with trip generation data based on applicable data contained in the ITE Trip Generation Manual. The model will determine the distribution/assignment of traffic related to each such development project. An impacted intersection will be (i) any such intersection for which the projected trip generation from the proposed project exceeds five percent (5%) of the intersection’s peak-hour capacity at LOS “C” and/or (ii) any intersection on either end of an impacted link.
- Total projected demand shall be the sum of existing background traffic volumes, projected traffic volumes from all existing lots and approved but not constructed development, and project volumes from the proposed development. For proposed development to be approved, trip generation from the proposed development must not reduce the Level of Service on any Town arterial or collector intersection below LOS “C” during peak-hour demand.
- D. INFORMATION NEEDED FOR ANALYSIS:** The information needed to perform the analysis necessary to determine compliance with this criterion is shown on Table 6 along with who is responsible for providing the information, the source of that information and when the information is to be provided during the application process.
- E. APPLICATION:** For residential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, and record plats, with capacity being reserved at record plat approval. For nonresidential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, record plats and site plans, with capacity being reserved at site plan approval.

- F. FEES:** All costs incurred by the Town to perform a transportation analysis to evaluate a proposed development in relation to its compliance with the Transportation SMARTGrowth Criteria will be paid by the development applicant. Said applicant shall deposit the estimated cost to perform such analysis with the Town prior to said analyses being performed. If the actual cost of any analysis is more than the estimated cost for same, the applicant shall pay the additional sum to the Town prior to the analysis being considered complete. Should the actual cost of an analysis be less than the anticipated cost for same, the Town will reimburse the applicant the difference between the estimated and actual cost of the analysis.

TABLE 6

**Town of Flower Mound – SMARTGrowth Analysis
Transportation Level of Service**

<u>Information Needed</u>	<u>Who Provides Information</u>	<u>How is Information Obtained</u>	<u>When is Information Needed</u>
Proposed Project			
– Land Use Categories	Applicant	Application	Initial Submittal
– Proposed Location and Access	Applicant	Application	Initial Submittal
– Project Phasing (Opening and Buildout)	Applicant	Application	Initial Submittal
Determination of Exemption			
– Economic Development	Town	Determination of Eligibility	Completion of Initial Review
– Civic or Institutional Use	Town	Determination of Eligibility	Completion of Initial Review
Establish Evaluation Inputs			
– Study Year	Town	Interpretation of Project Phasing	Project Review Period
– Programmed Capacity +	Town	CIP Project List	Project Review Period
– Baseline Level of Service	Town	Transcad Model	Project Review Period
SMARTGrowth Evaluation			
– Trip Generation	Town	ITE Trip Generation	Project Review Period
– Trip Distribution	Town	Transcad Model	Project Review Period
– Traffic Assignment	Town	Transcad Model	Project Review Period
– Level of Service Evaluation	Town	Transcad Model	Project Review Period

+ Programmed capacity includes capital infrastructure improvements programmed for commencement of construction within the then current or the next fiscal year of the Town’s adopted Five-Year Capital Improvement Program and capacity improvements for which the Texas Department of Transportation has awarded a construction contract and issued notice to proceed with the construction thereof.

Data from the ITE *Trip Generation Manual*, 6th Edition

Land Use	ITE Code	Independent Variable	AM Peak		PM Peak		24-Hour	
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Office	710	Square Footage	1.37	0.19	0.25	1.24	5.51	5.51
Shopping Center	820	Square Footage	0.63	0.40	1.80	1.94	21.46	21.46

DEFINITION OF LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS)	Control Delay per Vehicle (sec/veh)	Description
A And B	10(A) > 10 and 20 (B)	No delays at intersection with smooth progression of traffic. Uncongested operations; all vehicles clear in a single cycle.
C	> 20 and 35	Moderate delays at intersection with satisfactory to good progressions of traffic. Light congestion; occasional back-ups on critical approaches.
D	>35 and 55	Forty (40) percent probability of delays of one cycle or more at every intersection. No progression of traffic along the roadway with 90 percent probability of being stopped at every intersection experiencing “D” condition. Significant congestion on critical approaches, but intersection functional. Vehicles required to wait through more than one cycle during short peaks. No long standing lines formed.
E	> 55 and 80	Heavy traffic flow condition. Delays of two or more cycles probable. No progression. 100 percent probability of stopping at intersection. Limit of stable flow. Blockage of intersection may occur if traffic signal does not provide for protected turning movements.
F	> 80	Unstable traffic flow. Heavy congestion. Traffic moves in forced flow condition. Three or more cycles to pass through intersection. Total breakdown with stop-and-go operation.

Source: The latest edition of the Highway Capacity Manual (HCM) published by the Transportation Research Board.

DEFINITION OF LEVEL OF SERVICE FOR UNSIGNALIZED INTERSECTIONS

Level of Service (LOS)	Control Delay per Vehicle (sec/veh)	Description
A And B	10(A) > 10 and 15 (B)	No delays at intersections with continuous flow of traffic. Uncongested operations; high frequency of long gaps available for all left and right turning traffic; no observable queues.
C	> 15 and 25	Moderate delays at intersection with satisfactory to good traffic flow. Light congestion; infrequent backups on critical approaches.
D	>25 and 35	Increased probability of delays along every approach. Significant congestion on critical approaches, but intersection functional. No long standing lines formed.
E	> 35 and 50	Heavy traffic flow condition. Heavy delays probable. No available gaps for cross-street traffic or main turning traffic. Limit of stable flow.
F	> 50	Unstable traffic flow. Heavy congestion. Traffic moves in forces flow condition. Average delays greater than one minute highly probable. Total breakdown.

Source: The latest edition of the Highway Capacity Manual (HCM) published by the Transportation Research Board.

SMARTGrowth ANALYSIS

B. ADEQUATE PUBLIC FACILITIES

1. PARK LAND

- A. **PURPOSE:** The purpose of this criterion is to provide adequate availability and access to park lands and recreational opportunities for residents of all ages and to maintain and nurture a quality living environment and a family-friendly community.
- B. **CRITERION: Park Land.** Beginning January 1, 2002, no development application or project shall be approved if the combined amount of community and neighborhood park land available Town-wide is less than 9.0 acres per 1,000 population, based upon the then available community and neighborhood park land and any such park land programmed for acquisition during the then current or the next fiscal year of the Town's Capital Improvement Program. Beginning January 1, 2003, no development application or project shall be approved if the combined amount of community and neighborhood park land available Town-wide is less than 9.5 acres per 1,000 population, based upon the then available community and neighborhood park land and any such park land programmed for acquisition during the then current or the next fiscal year of the Town's Capital Improvement Program. Beginning January 1, 2004, no development application or project shall be approved if the combined amount of community and neighborhood park land available Town-wide is less than 10.0 acres per 1,000 population, based upon the then available community and neighborhood park land and any such park land programmed for acquisition during the then current or the next fiscal year of the Town's Capital Improvement Program. After January 1, 2005, no development application or project shall be approved if the combined amount of community and neighborhood park land available Town-wide is less than 10.5 acres per 1,000 population, based upon the then available community and neighborhood park land and any such park land programmed for acquisition during the then current or the next fiscal year of the Town's Capital Improvement Program.
- C. **METHODOLOGY:** Total available community and neighborhood park land shall be the sum of all such park land owned by the Town at the time of development application and any such park land programmed for acquisition during the then current or the next fiscal year of the Town's Capital Improvement Program.

Total projected demand for community and neighborhood park land shall be the sum of projected existing population at the time of development application, projected population for 100.0% of the lot inventory, and projected population for the proposed development (with all population projections using the North Central Texas Council of Government's population multiplier for Flower Mound). For development to be approved, the total available community and neighborhood park land relative to projected demand for same expressed in acres per 1,000 population must be equal to or greater than the standards established in the Park Land SMARTGrowth Criterion.

- D. **INFORMATION NEEDED FOR ANALYSIS:** The information needed to perform the analysis necessary to determine compliance with this criterion is shown on Table 7 along with who is responsible for providing the information, the source of that information and when the information is to be provided during the application process.

- E. APPLICATION:** For residential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, and record plats, with available park land being reserved at record plat approval. This criterion is not applicable to nonresidential projects.

TABLE 7

**Town of Flower Mound – SMARTGrowth Analysis
Park Land**

<u>Information Needed</u>	<u>Who Provides Information</u>	<u>How is Information Obtained</u>	<u>When is Information Needed</u>
- Current Developed Park Land	Town	Town Maps and Plats	Initial Submittal
- Current Undeveloped Park Land	Town	Town Maps and Plats	Initial Submittal
- Park Land Programmed for Acquisition +	Town	Town CIP	Initial Submittal
- Estimate of Current Town Population	Town	North Central Texas COG	Initial Submittal
- Residential Lot Inventory	Town	Compiled by Approved Application	Initial Submittal
- Number of Residential Dwelling Units in Proposed Development	Applicant	Master Plan Amendment, Zoning Amendment, Development Plan, or Record Plat	Initial Submittal
- Acreage of Park Land in Proposed Development	Applicant	Master Plan Amendment, Zoning Amendment, Development Plan, or Record Plat	Initial Submittal

† Approved applications for Master Plan amendments, zoning amendments, development plans, and/or record plats.

+ Includes park land programmed for acquisition in the then current or the next fiscal year of the Town’s adopted Five-Year Capital Improvement Program.

Town of Flower Mound – SMARTGrowth Analysis Park Land Calculation Sheet

Current Capacity: The capacity is the sum of all park land dedication to the Town plus park land programmed for acquisition in the current or the next fiscal year in the Town's Capital Improvement Program.

Developed Park Land	325.5 Acres
Undeveloped Park Land	195.5 Acres
Programmed Capacity	20.0 Acres
Park Land In Proposed Development	<u>0 Acres</u>
Total Park Land Capacity	541.0 Acres

Demand: Beginning January 1, 2002, the demand is 9.0 acres per 1,000 population. Beginning January 1, 2003, the demand is 9.5 acres per 1,000 population. Beginning January 1, 2004, the demand is 10.0 acres per 1,000 population. After January 1, 2005, then becomes 10.5 acres per 1,000 population.

55,682		X	9.0	acres Divided by 1,000	=	501.1
(Existing Population)						
0	x		3.2	X	9.0	acres Divided by 1,000 = 0 acres
(# of Residential Units In Inventory)			(Persons Per Residential Unit)			
0	x		3.2	X	9.0	acres Divided by 1,000 = 0 acres
(# of Residential Units Proposed)			(Persons Per Residential Unit)			

TOTAL DEMAND	501.1 acres

IF TOTAL PARK LAND CAPACITY 541.0 Acres

IS GREATER THAN TOTAL DEMAND 501.1 Acres

DEVELOPMENT MAY PROCEED

2. ACCESS TO PUBLIC TRAILHEADS AND PUBLIC RECREATIONAL AREAS

- A. **PURPOSE:** The purpose of this criterion is to provide adequate availability and access to park lands and recreational opportunities for residents of all ages to maintain and nurture a quality living environment and a family-friendly community.
- B. **CRITERION: Access to Public Trailheads and Public Recreational Areas.** No development application or project shall be approved that proposes to eliminate existing access to public trailheads or other public recreational areas on public lands. The access provided may be restricted to pedestrian, bicycle and/or equestrian uses.
- C. **METHODOLOGY:** Compliance with this criterion shall be in accordance with the applicable provisions of the Design Criteria and Construction Standards and Parks and Trails Plan component of the Comprehensive Plan as adopted by the Town Council.
- D. **APPLICATION:** For residential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, and record plats. For nonresidential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, record plats, and site plans. with capacity being reserved at record plat approval. For nonresidential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans, record plats and site plans.

3. PUBLIC SCHOOLS

PURPOSE: The purpose of this criterion is to ensure that adequate town facilities and infrastructure exist to provide both existing and future student populations with optimal learning opportunities as an essential element of a quality living environment and a family-friendly community.

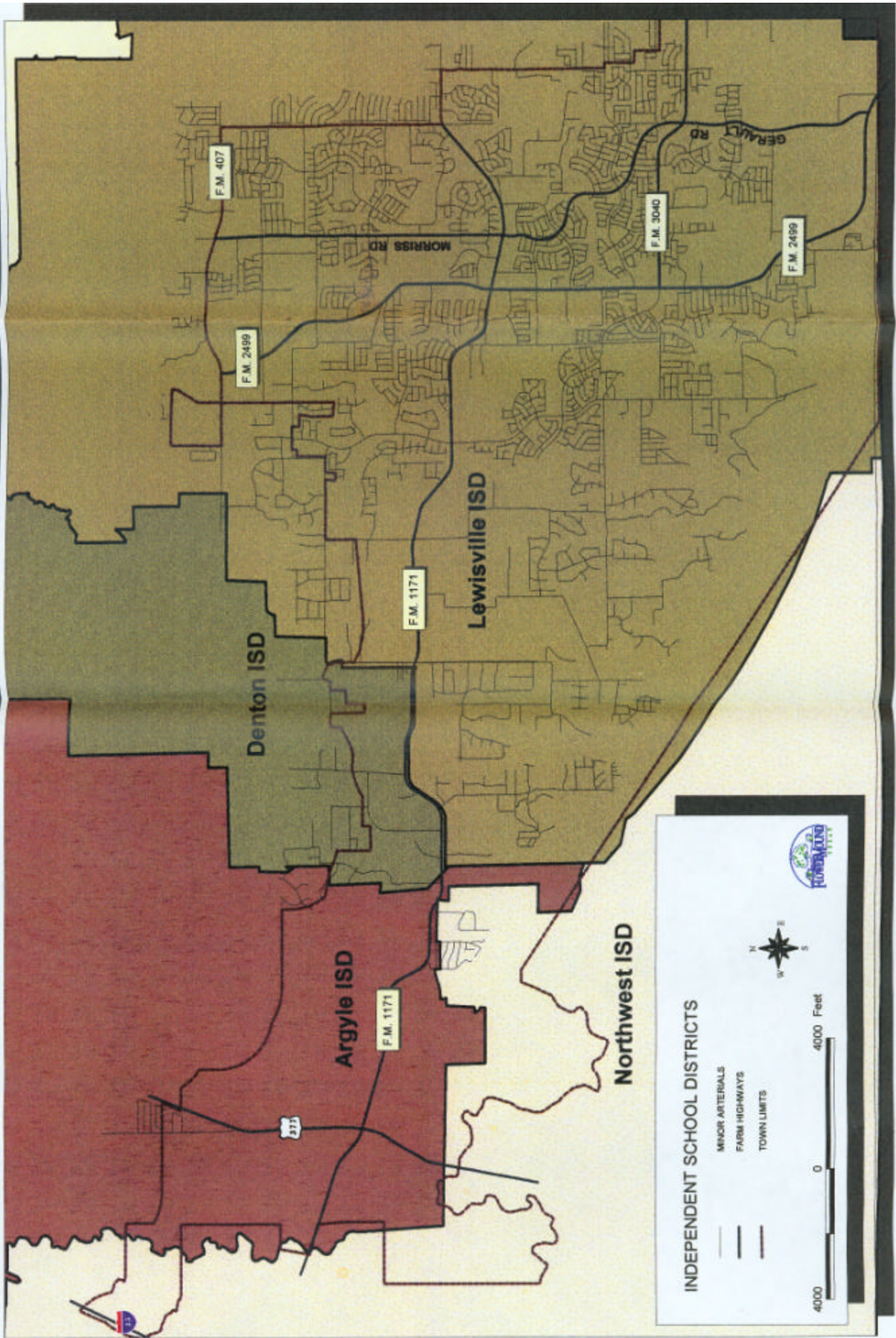
CRITERION: Public Schools. For any residential development application or project, the town shall notify in writing and request confirmation of such notification from the applicable public school district that such residential development application or project has been filed with the town. The town will assist the public school district, if requested, in addressing any program capacity issues relative to any town infrastructure serving any and all public elementary, middle and high schools that will receive student population as a result of the proposed development.

APPLICATION: For residential projects, applicable to applications for Master Plan amendments, zoning amendments, development plans and record plats. This criterion is not applicable to nonresidential projects.

SCHOOL DISTRICTS IN FLOWER MOUND (Contact Information on File):

- a. Lewisville Independent School District
- b. Denton Independent School District
- c. Argyle Independent School District
- d. Northwest Independent School District

School District Boundary Map



INDEPENDENT SCHOOL DISTRICTS

- MINOR ARTERIALS
- FARM HIGHWAYS
- TOWN LIMITS



4000 0 4000 Feet



SMARTGrowth ANALYSIS

C. ADEQUATE PUBLIC SERVICES

1. POLICE SERVICES

A. PURPOSE: The purpose of this criterion is to safeguard the public health, safety, and welfare by maintaining quality police services at a level consistent with Town growth, change, and expectations.

B. CRITERION: Police Services. In order to ensure adequate staffing, resources, and service levels, the department head, or his designee, will provide the SMARTGrowth Commission with an annual report. The report will be made to the Commission no later than 90 days after the end of the previous calendar year. This report will be based on previous calendar year data, inclusive of criteria that demonstrate the department's service levels as related to equity, effectiveness, and efficiency.

- Equity
 - i. Data regarding customer service and external complaints
 - ii. Documentation of accreditation
 - iii. Documentation of Texas Commission on Law Enforcement (TCOLE) training standards compliance
- Effectiveness
 - i. Review of response times by priority
 - ii. Review of case clearance rates
 - iii. Review of crime rates
 - iv. Review of traffic crash data
 - v. Review of community programs
 - vi. Review of annual employee survey
 - vii. Review of available citizen survey results
- Efficiency
 - i. Report pertaining to staffing levels and deployment, organizational structure, budget, and use of technology

C. METHODOLOGY:

- Equity
 - i. Racial profiling and internal affairs complaints/findings are recorded in departmental software
 - ii. Certificate or accreditation or reaccreditation is provided by the accrediting body
 - iii. Training data is recorded in departmental software for submission to TCOLE
- Effectiveness
 - i. Response times are recorded in communication center software
 - ii. Criminal case clearance rates are recorded in departmental software
 - iii. Crime rates are recorded in departmental software and submitted to the FBI for the Uniform Crime Report
 - iv. Vehicle crash data is recorded in departmental software
 - v. Active community programs are recorded and managed by the community services section of the department
 - vi. Data from an anonymous department employee survey is recorded and held by the office of the Chief of Police
 - vii. Citizen survey results are recorded and held by the Town Manager
- Efficiency
 - i. Information regarding staffing levels and deployment, organizational structure, budget, and use of technology, are compiled and held by the office of the Chief of Police

D. INFORMATION NEEDED FOR ANALYSIS: The information needed for the report is listed in Item B.

E. APPLICATION: The Commission will hear the report, have the ability to clarify any questions, based on information held within the report, and provide input to assist the department in maintaining service levels consistent with Town goals and objectives.

2. FIRE AND EMERGENCY SERVICES

A. PURPOSE: The purpose of this criterion is to safeguard the public health, safety, and welfare by maintaining quality fire and emergency services at a level consistent with Town growth, change, and expectations.

B. CRITERION: Fire and Emergency Services. In order to ensure adequate staffing, resources, and service levels, the department head, or his designee, will provide the SMARTGrowth Commission with an annual report. The report will be made to the Commission no later than 90 days after the end of the previous calendar year. This report will be based on previous calendar year data, inclusive of criteria that demonstrate the department's service levels as related to equity, effectiveness, and efficiency.

- Equity
 - i. Data regarding customer service comments
 - ii. Documentation of compliance with National Fire Protection Association (NFPA), Texas Commission on Fire Protection (TCFP), the Texas Division of Emergency Management (DEM), the Texas Department of State Health Services (DSHS), and the Insurance Services Office (ISO) standards
- Effectiveness
 - i. Review of response times by priority for fire and EMS
 - ii. Review of unit availability
 - iii. Review of total calls for service
 - iv. Review of fire prevention and inspection efforts
 - v. Review of emergency management
 - vi. Review of community programs
 - vii. Review of annual employee survey
 - viii. Review of available citizen survey results
- Efficiency
 - i. Report pertaining to staffing levels and deployment, organizational structure, budget, and use of technology

C. METHODOLOGY:

- Equity
 - i. Certificates or compliance is provided by the governing entity
 - ii. Training data is recorded in departmental software for submission to state
- Effectiveness
 - i. Response times are recorded in departmental software
 - ii. Unit availability statistics are recorded in departmental software
 - iii. Statistics for total calls for service are recorded in departmental software
 - iv. Statistics for fire prevention and inspection efforts are recorded in departmental software
 - v. Statistics for Emergency Management are recorded in departmental software
 - vi. Statistics for community programs are recorded in departmental software
 - vii. Statistics for annual employee survey are recorded in departmental software
 - viii. Citizen survey results are recorded and held by the Town Manager
- Efficiency
 - i. Information regarding staffing levels and deployment, organizational structure, budget, and use of technology, are compiled and held by the office of the Fire Chief

D. INFORMATION NEEDED FOR ANALYSIS: The information needed for the report is listed in Item B.

E. APPLICATION: The Commission will hear the report, have the ability to clarify any questions, based on information held within the report, and provide input to assist the department in maintaining service levels consistent with Town goals and objectives.

SMARTGrowth ANALYSIS

D. ECONOMIC DEVELOPMENT

1. ECONOMIC DEVELOPMENT INCENTIVE POLICY

- A. PURPOSE:** The purpose of this criterion is to assist in meeting the goals set forth in the Town's Economic Development and Marketing Plan while promoting a vigorous, diversified and regionally competitive economy, and a balanced tax base to ensure Flower Mound's long-term financial ability to respond to the service demands of both new and existing development without placing a disproportionate tax burden on homeowners.
- B. CRITERION: Economic Development Incentive Policy.** New private capital investment (exclusive of land values) exceeding the following schedule of taxable valuations may be considered for economic development incentives.
- **Campus Commercial** including corporate office, office park development, hospitality and/or resort uses, private medical and health care uses, retail uses, and other business uses related to the telecommunications and bio-tech industries exceeding a total valuation of \$10,000,000 for a single structure or \$15,000,000 for multiple buildings in a single related development.
 - **Campus Industrial** including clean manufacturing uses related to electronic components and/or the telecommunications or bio-tech industries, logistical warehousing and distribution uses, and research and development uses exceeding a valuation of \$7,500,000 for a single structure or \$10,000,000 for multiple buildings in a single related development.
 - **Retail and Mixed Use** including single and multiple retail uses and mixed-use developments consisting of both office and retail uses, with a single retail structure exceeding a valuation of \$5,000,000, multiple retail uses in a single related development exceeding \$7,500,000 or mixed-use developments including both office and retail when the cumulative value of all construction valuation exceeds \$10,000,000.
- C. METHODOLOGY:** Incentives will be considered and negotiated on a project-by-project basis commensurate with the quality and character of the development and the extent to which it contributes to the accomplishment of community character and quality of life objectives. Incentives may be considered for approval by the Town Council only after community input and public hearing. The incentives may include but are not limited to the following:
- Permit fee waivers or reductions
 - Impact fee reductions
 - Infrastructure assistance
 - Public/private partnerships
 - Performance-based tax abatements (with give back provisions in the event of non-performance)

- D. EXCEPTIONS:** It is recognized that certain projects that qualify for economic development incentives, due to their size, location, amenities and design, may necessitate waivers from the environmental quality and community character SMARTGrowth Criteria contained in the SMARTGrowth Program. Consequently, an applicant may submit a request for a waiver of one or more environmental quality and/or community character SMARTGrowth Criteria. Each requested waiver shall be evaluated and action taken thereon by the Planning and Zoning Commission and the Town Council in accordance with the purposes and objectives contained in Section (a) of the SMARTGrowth Program adopted by Ordinance No. 41-02.
- E. APPLICATION:** For nonresidential projects, depending upon the nature of the project, incentives will be applied at the appropriate step in the development process, as determined by the Town. Expedited development review shall be approved administratively.

SMARTGrowth ANALYSIS

E. ENVIRONMENTAL QUALITY

1. WATERSHED PROTECTION

- A. **PURPOSE:** The purpose of this criterion is to mitigate the ill effects of increases in velocity, volume, and pollution of surface run-off on downstream property owners and to protect the overall water quality of the Town as a result of rapid and intense urbanization.
- B. **CRITERION: Watershed Protection.** No development application or project shall be approved if the projected velocity and volume of surface run-off exceeds predevelopment conditions, with any additional run-off projected to be generated by development being retained on-site and absorbed, evaporated and/or released from the development at a rate not exceeding the predevelopment conditions. Erosion control and pollution prevention plans shall be adequate to prevent erosional and depositional features such as gullies and accumulations of silt attributable to site development, with such adequacy being determined by the Town.

The proposed development site design shall include “best management practices,” as defined in the Town’s Engineering Standards Manual. “Best management practices” may include, but are not limited to, the following types of structural and nonstructural practices: wet ponds, dry extended detention ponds, infiltration basins and trenches, porous pavement, bioretention, organic filters, buffer zones, open space design, urban forestry, conservation easements, storm water wetlands, grassed swales and filter strips, green parking, alternative turnarounds and water quality inlets. “Best management practices” will be included in a Watershed Protection Plan and said Watershed Protection Plan shall evaluate and minimize potential drainage impacts that could negatively affect, destroy or otherwise compromise on- and offsite surface and subsurface water quality, sensitive environmental features (such as riparian vegetation, trees, soils or grassland and prairie vegetation) and wildlife habitats (including terrestrial and aquatic).

- C. **METHODOLOGY:** The Watershed Protection Plan shall be prepared by a qualified individual or firm designated by the Town and must be approved by the Town prior to any side development by an applicant.
- D. **APPLICATION:** For residential projects, applicable to applications for development plans and record plats. For nonresidential projects, applicable to applications for record plats and site plans.

2. WETLANDS

- A. **PURPOSE:** The purpose of this criterion is to protect the natural, scenic and ecological resources that are essential elements of Flower Mound's community character and which provide irreplaceable plant and wildlife habitat.
- B. **CRITERION: Wetlands.** No development application or project shall be approved without appropriate professional certification as to the existence of any jurisdictional wetlands and/or waters of the United States, as such jurisdictional areas are defined at the time of development application by the United States Army Corps of Engineers. If such wetlands and/or waters are determined to exist, assurance or proof of compliance acceptable to the Town must be provided relative to all federal regulations pertaining to the protection and mitigation of such jurisdictional areas. The Town reserves the right to require the protection and preservation of any or all jurisdictional areas determined to exist and to deny proposed mitigation measures.
- C. **METHODOLOGY:** Field investigation and certification shall be prepared by Town personnel or a qualified individual or firm designated by the Town and said certification must be approved by the Town prior to any site development by the applicant.
- D. **APPLICATION:** For residential projects, applicable to applications for development plans and record plats. For nonresidential projects, applicable to applications for record plats and site plans.

3. TOPOGRAPHICAL SLOPE PROTECTION

- A. The purpose of this criterion is to ensure that development is respectful of and appropriately integrated with the natural physical geography of the land in Flower Mound by requiring environmentally sensitive development techniques to eliminate “scrape and build” development.
- B. **CRITERION: Topographical Slope Protection.** No development application or project shall be approved that proposes development on any existing topographical slopes of twelve percent (12.0%) or greater, or that proposes to alter any existing topographical slopes that are less than twelve percent (12.0%) but equal to or greater than five percent (5.0%) (other than within five feet of the footprint of the proposed structure or structures).
- C. **METHODOLOGY:** Compliance with this criterion shall be in accordance with the applicable provisions of the Design Criteria and Construction Standards as adopted by the Town Council. This criterion shall apply when the stated topographical slopes exist for a total horizontal distance over 50 feet or if the total vertical rise is over 6 feet.
- D. **APPLICATION:** For residential projects, applicable to applications for zoning, planned developments, development plans and record plats. For nonresidential projects, applicable to applications for zoning, planned developments, record plats and site plans.

4. WATER IMPOUNDMENT PROTECTION

- A. **PURPOSE:** The purpose of this criterion is to protect the natural, scenic and ecological resources that are essential elements of Flower Mound's community character and that provide irreplaceable plant and wildlife habitat.
- B. **CRITERION: Water Impoundment Protection.** No development application or project shall be approved that proposes to eliminate, or to alter or discontinue recharge flows to, existing impoundments of water with a surface area capacity of one-half acre or more (regardless of whether such impoundments are naturally occurring or constructed). All such impoundments shall be integrated into the proposed development and addressed in the development's Environmental Protection Plan, if applicable, which shall at a minimum include such enhancements and restoration as are necessary to provide or maintain reasonable wildlife habitat, to improve the aesthetic quality in areas of shoreline transition and to stabilize shoreline areas subject to erosion.
- C. **METHODOLOGY:** Compliance with this criterion shall be in accordance with the applicable provisions of the Design Criteria and Construction Standards as adopted by the Town Council.
- D. **APPLICATION:** For residential projects, applicable to applications for development plans and record plats. For nonresidential projects, applicable to applications for record plats and site plans.

5. ENVIRONMENTAL SURVEY

- A. PURPOSE:** The purpose of this criterion is to identify important natural, scenic and ecological resources that are essential elements of Flower Mound’s community character and which provide irreplaceable plant and wildlife habitat.
- B. CRITERION: Environmental Survey.** No development or project shall be approved for development until an “Environmental Survey” (“the Survey”) has been prepared by the Town or a Town-approved environmental consultant. The Survey shall identify and visually represent all potentially environmentally sensitive areas (“ESAs”), which include upland habitat, riparian habitat, waters of the State, prairie habitat, and developed and undeveloped floodplain. If an ESA is found on the proposed development site, the developer must submit to the Town a professionally prepared Environmental Protection Plan (“the Plan”). The Plan shall be prepared by a qualified individual or firm designated or retained by the Town.
- C. METHODOLOGY:** The Survey required under this section shall be prepared by Town Staff. Town Staff will be responsible for identifying any designated ESA on the proposed development site. The ESA Survey will involve a Geographic Information Systems (GIS) analysis using orthographic aerial photographs and at least one (1) predevelopment site inspection. The criteria for determining if an ESA is present on the site shall be: Upland Habitat includes any stand of trees equal to or greater than ten (10) acres (which may be entirely or partially contained within or intersecting the site) consisting predominated of tree species listed on the Town’s Protected Tree List; Riparian Habitat includes any vegetative coverage (canopy and/or understory) within a floodplain or directly adjacent to and interconnected with vegetative coverage within a floodplain; Waters of the State include any water body designated by the Texas Water Code or Federal Clean Water Act as a “Water of the State” (this includes, but not limited to, streams, creeks, lakes, ponds or wetlands); prairie habitat includes climax or mid-successional native grass species with associated intact prairie or savannah soil types; floodplains shall be determined from official FEMA Flood Insurance Rate maps. If the Survey identifies at least one ESA on the proposed development site, the developer shall be responsible for creating, implementing and managing specific, Town approved best management practices developed through the use of an “Environmental Protection Plan.”
- D. APPLICATION.** For residential projects, applicable to applications for zoning amendments, development plans and record plats. For nonresidential projects, applicable to applications for zoning amendments, development plans, record plats, and site plans.

6. ENVIRONMENTAL PROTECTION PLAN

- A. **PURPOSE:** The purpose of this criterion is to protect the natural, scenic and ecological resources that are essential elements of Flower Mound’s community character and which provide irreplaceable plant and wildlife habitat.
- B. **CRITERION: Environmental Protection Plan.** No development application or project shall be approved for development without the submission of an Environmental Protection Plan (“the Plan”) prepared by a qualified individual or firm designated or retained by the Town if an Environmental Survey identified any Environmentally Sensitive Area (ESA) within the proposed development site.

The Plan shall identify principle flora and fauna species present; indicate the overall ecological integrity/health of the site; and designate and map existing environmental and wildlife habitat elements. The Plan shall also demonstrate best management practices to minimize land disturbance and the modification of natural land forms to protect, conserve and/or restore any designated ESA; demonstrate proposed measures to maintain contiguity of tree stands and other wildlife habitat areas or corridors; demonstrate proposed measures to inform and educate future residents or occupants of the development site about the Plan.

- C. **METHODOLOGY:** The Town shall evaluate and approve or disapprove the Plan on the basis of the following criteria: sound environmental science, water quality protection, specific site conditions, cost effectiveness, impact upon the site’s development potential, environmental and public health objectives and economic development objectives.

The Plan shall identify and visually represent: the principal fauna and flora species present; indicate the overall ecological health of the proposed development area; any habitat or species within the proposed development area that are designated by any state or federal agency as “protected,” “threatened,” or “endangered;” all existing environmental and wildlife habitat elements (including: sources of water, vegetative cover and composition, soil type and condition, site topography, and wildlife management corridors and wildlife use areas).

The consultant preparing the Plan shall also provide a list of potential structural, nonstructural and incentive-based Best Management Practices (“BMPs”), which could be specifically used to protect, conserve and/or restore the environmentally sensitive areas located on the proposed development site.

Through the Plan, The developer shall demonstrate specific BMPs for minimizing land disturbance and the modification of natural land forms in order to maximize the preservation of large stands of trees and/or other habitat related environmental features, which are, where applicable, maintained as contiguous with both onsite and adjacent trees stands, as well as, other related wildlife habitat areas; demonstrate proposed measures to provide for the movement of wildlife through or around the proposed development areas by the interconnection of wildlife management corridors; demonstrate proposed measures contained within the overall site plan that shall mitigate, protect and/or restore the

ecological integrity, habitat biodiversity and wildlife management corridors that are commensurate with the ecological conditions within the proposed development area; and demonstrate proposed measures acceptable to the Town to inform and educate future residents of the development relative to the development's environmental protection features and how to properly maintain said features in the long-term. The Plan will be evaluated using the following criteria: sound environmental science and planning, specific site conditions, cost effectiveness and other relevant Town environmental and public health concerns or issues.

- D. APPLICATION:** For residential projects, applicable to applications for development plans and record plats. For nonresidential projects, applicable to applications for development plans, record plats, and site plans.

SMARTGrowth ANALYSIS

F. COMMUNITY CHARACTER

1. DESIGN OF NONRESIDENTIAL BUILDINGS

- A. **PURPOSE:** The purpose of this criterion is twofold: (1) to ensure that the character and quality of retail, commercial, and industrial development contributes to desired community character objectives and (2) to preclude the design and construction of buildings for which the tenants and/or uses are readily recognizable solely by the buildings' architectural elevations, colors, materials, other architectural elements and/or the arrangement thereof.
- B. **CRITERION: Design of Nonresidential Buildings.** No development application or project shall be approved for nonresidential uses unless the proposed buildings are individually designed and planned to create structures that comply with the Town's adopted architectural guidelines or standards, as they exist on the date of development application.
- C. **METHODOLOGY:** Conformance with this criterion shall be in accordance with applicable provisions of the Town's Urban Design Plan and architectural guidelines and standards as adopted by the Town Council.
- D. **APPLICATION:** This criterion is not applicable to residential projects or any institutional or civic projects. For nonresidential projects, applicable to applications for site plans.

2. ON-SITE UTILITY DISTRIBUTION FACILITIES

- A. **PURPOSE:** The purpose of this criterion is to ensure that the character and quality of Flower Mound's built environment contribute to desired community character objectives and to maintain or enhance property values.
- B. **CRITERION: On-Site Utility Distribution Facilities.** No development application or project shall be approved unless all on site utility distribution facilities are designed to be placed underground, including the land-wire distribution facilities of electrical, cable, telephone and telecommunications providers.
- C. **METHODOLOGY:** Conformance with this criterion shall be in accordance with applicable provisions of the Design Criteria and Construction Standards as adopted by the Town Council.
- D. **APPLICATION:** For residential projects, applicable to applications for development plans and record plats. For nonresidential projects, applicable to applications for record plats and site plans.

3. RESIDENTIAL DENSITY

- A. **PURPOSE:** The purpose of this criterion is to ensure that adequate public infrastructure, facilities and services to serve the demands created by new development without degrading or diminishing service levels to existing development.
- B. **CRITERION: Residential Density.** No residential application or project shall be approved that increases residential density beyond the density allowed in the Master Plan.
- C. **METHODOLOGY:** Conformance with this criterion shall be in accordance with applicable provisions of the Town's Master Plan and/or Land Development Code as adopted by the Town Council.
- D. **APPLICATION:** For residential projects, applicable to applications for zoning amendments, development plans, and record plats. This criterion is not applicable to nonresidential projects.

4. URBAN DESIGN

- A. **PURPOSE:** The purpose of this criterion is to provide for design direction for landscaping elements within and visible from public rights of way as well as architectural standards for non-residential buildings.
- B. **CRITERION: Urban Design.** No development application or project shall be approved unless it complies with the Urban Design Plan, a component of the Master Plan.
- C. **METHODOLOGY:** Conformance with this criterion shall be in accordance with applicable provisions of the Town's Master Plan and/or Land Development Code as adopted by the Town Council.
- D. **APPLICATION:** For residential projects, applicable to applications for zoning amendments, development plans, and record plats. For nonresidential projects, applicable to applications for zoning amendments, development plans, record plats, and site plans.

5. AREA AND SPECIFIC PLANS

- A. **PURPOSE:** The purpose of this criterion is to preserve the country atmosphere and natural environment that makes Flower Mound a unique and desirable community; mitigate the ill effects of rapid and intense urbanization; create a balanced tax base to ensure the Town's long term economic health and prosperity; and ensure all development is of enduring and exemplary quality.
- B. **CRITERION: Area and Specific Plans.** No development application or project shall be approved unless it complies with applicable Area and/or Specific Plans, component plans of the Master Plan.
- C. **METHODOLOGY:** Conformance with this criterion shall be in accordance with applicable provisions of the Town's Master Plan and/or Land Development Code as adopted by the Town Council.
- D. **APPLICATION:** For residential projects, applicable to applications for zoning amendments, development plans, and record plats. For nonresidential projects, applicable to applications for zoning amendments, development plans, record plats, and site plans.

6. AGRICULTURAL EASEMENTS

- A. **PURPOSE:** The purpose of this criterion is to protect existing agricultural operations and uses (which create and define Flower Mound’s unique community character and quality of life) from future conflict with new residential development.
- B. **CRITERION: Agricultural Easements.** No residential development application or project that proposes development adjacent to existing agricultural operations or uses shall be approved without the recordation of an agricultural resource management easement acknowledging the existence of such agricultural operations or uses, waiving all common law rights to object to necessary and customary agricultural management activities associated with such agricultural operations or uses legally conducted on adjacent lands, and granting an easement to adjacent property owners to continue such agricultural operations or uses. Said easement shall be recorded on the face of the record plat of the development, and no building permit for a residence on any lot in the development shall be issued until a substantially identical easement has been lawfully recorded by the property owner.
- C. **METHODOLOGY:** Compliance with this criterion shall be through the execution and filing of appropriate documents as provided or approved by the Town of Flower Mound establishing Agricultural Resource Management easements to continue agricultural operations or uses.
- D. **APPLICATION:** For residential projects, applicable to applications for development plans and record plats. This criterion is not applicable to nonresidential projects.

*After Recording Return To:
Town of Flower Mound
2121 Cross Timbers Road
Flower Mound, Texas 75028*

AGRICULTURAL RESOURCE MANAGEMENT EASEMENT

STATE OF TEXAS §
§ **KNOW ALL MEN BY THESE PRESENT**
COUNTY OF DENTON §

_____ (hereinafter “Grantors”) are the owners of real property described as follows:

[insert legal description]

Grantors acknowledge that there are pre-existing agricultural uses or operations adjacent to the aforementioned property. In accordance with the conditions set forth in the decision of _____, dated _____, _____, approving a Record Plat or Building Permit for residential development on the above described property, and in consideration of such approval, and other good and valuable consideration, the sufficiency of which is hereby acknowledged and agreed, Grantors grant to the owners of all property adjacent to the above described property, a perpetual nonexclusive easement as follows:

1. The Grantors, their heirs, successors, and assigns acknowledge by the granting of this easement that the above described property is situated in an agricultural area and may be subjected to conditions resulting from commercial agricultural operations on adjacent lands. Such operations include but are not limited to the cultivation, harvesting, and storage of crops and livestock raising and the application of chemicals, operation of machinery, application of irrigation water, and other accepted and customary agricultural activities conducted in accordance with federal and state laws. These activities ordinarily and necessarily produce noise, dust, smoke, and other conditions that may conflict with Grantors’ use of Grantors’ property for residential purposes. Grantors hereby waive all common law rights to object to normal, necessary and customary agricultural management activities associated with such agricultural operations or uses legally conducted on adjacent lands which may conflict with Grantors’ use of Grantors’ property for residential purposes and Grantors hereby grant an easement to adjacent property owners for such activities and the continuation of such agricultural uses and operations.

2. Nothing in this easement shall grant a right to adjacent property owners for ingress or egress upon or across the described property. Nothing in this easement shall prohibit or otherwise restrict the Grantors from enforcing or seeking enforcement of statutes or regulations of governmental agencies for activities conducted on adjacent properties.

This easement is appurtenant to all property adjacent to the above described property and shall bind to the heirs, successors, and assigns of Grantors and shall endure for the benefit of the adjoining landowners, their heirs, successors, and assigns. Grantor hereby binds Grantor, Grantor's heirs, successors and assigns to WARRANT and FOREVER DEFEND said easement and rights appurtenant thereto unto the adjacent landowners, their heirs, successors and assigns, against every person whomsoever lawfully claiming, or to claim, the same or any part thereof. The adjacent landowners, their heirs, successors, and assigns are hereby expressly granted the right of third party enforcement of this easement.

IN WITNESS WHEREOF, the Grantors have executed this easement on _____,
_____.

(signature) Grantor

(signature) Grantor

STATE OF TEXAS §
 §
COUNTY OF DENTON §

I, the undersigned authority, do hereby certify the foregoing person, _____,
appeared before me and was known to me to be the person whose name is subscribed hereto.

GIVEN UNDER MY HAND AND SEAL THIS ____ day of _____, _____.

Notary Public in and for the
State of Texas

My Commission Expires:

STATE OF TEXAS §
 §
COUNTY OF DENTON §

I, the undersigned authority, do hereby certify the foregoing person, _____,
appeared before me and was known to me to be the person whose name is subscribed hereto.

GIVEN UNDER MY HAND AND SEAL THIS ____ day of _____, _____.

Notary Public in and for the
State of Texas

My Commission Expires: _____

7. VISUAL IMPACT

- A. **PURPOSE:** The purpose of this criterion is to protect the open lands, natural landforms, agricultural landscapes and scenic vistas that create and define Flower Mound's unique community character and quality of life.
- B. **CRITERION: Visual Impact.** No development application or project shall be approved unless the proposed development shall occur in patterns that minimize the visual impacts of the development in relation to scenic roads, country roads and scenic corridors, as designated in the Master Plan or any component plan thereof.
- C. **METHODOLOGY:** Conformance with this criterion shall be in accordance with applicable provisions of the Town's Master Plan and/or Land Development Code as adopted by the Town Council.
- D. **APPLICATION:** For residential projects, applicable to applications for zoning amendments, development plans, and record plats. For nonresidential projects, applicable to applications for zoning amendments, development plans, record plats, and site plans.

8. CONSERVATION DEVELOPMENT

- A. PURPOSE:** The purpose of this criterion is to mitigate the ill effects of rapid and intense urbanization in Flower Mound by protecting the open lands, natural land forms, agricultural landscapes and scenic vistas that create and define Flower Mound’s unique community character and quality of life.
- B. CRITERION: Conservation Development.** No development application or project shall be approved for a conservation development unless it complies with applicable requirements set forth in the Land Development Code for a conservation development within an A, Agricultural District and/or SF-E, Single-Family Estate District. Conserved areas must be in conservation easement.

Conservation development will be considered for conservation incentives commensurate with the quality and character of the open or natural lands to be placed within a conservation easement or otherwise conserved and the extent to which the conveyed land contributes to the preservation of the country character, including its open, natural, scenic and ecological values.

Incentives will be considered on a project-by-project basis and will be approved by the Town Council only after community input and public hearing. Expedited development review shall be approved administratively.

Such incentives may include but are not limited to: expedited development review, permit fee waivers, reduced street infrastructure requirements, reduced park land dedication requirements, and reduction of monetary assessments relative to agricultural rollback taxes. Reduction of park land dedication to correspond to percentage of conserved area.

- C. METHODOLOGY:** Conformance with this criterion shall be in accordance with applicable provisions of the Town’s Master Plan and/or Land Development Code as adopted by the Town Council.
- D. APPLICATION:** For residential projects, applicable to applications for zoning amendments, development plans, and record plats. This criterion is not applicable to nonresidential projects.

9. RURAL DEVELOPMENT

- A. **PURPOSE:** The purpose of this criterion is to provide for a “Rural Development Option” on lots of five (5) acres, or greater that reflects the country atmosphere and natural environment of Flower Mound. This Rural Development Option may include specialized types of development, such as equestrian oriented developments. To encourage “Rural Development,” incentives may be considered based on the proposed development and the preservation of open space and natural lands within the development.
- B. **CRITERION: Rural Development.** No development application or project shall be approved for a “Rural Development Option” for a single-family detached development on lots of less than (5) acres in size. Subdivisions designated for “Rural Development” that include incentives shall not be subdivided further without approval of the Town. Expedited development review shall be approved administratively.
- C. **METHODOLOGY:** Conformance with this criterion shall be in accordance with applicable provisions of the Town’s Comprehensive Plan and/or Land Development Code as adopted by the Town Council.
- D. **APPLICATION:** For residential projects, applicable to applications for zoning amendments, development plans, and record plats. This criterion is not applicable to nonresidential projects.