SECTION 5 REQUIREMENTS FOR PUBLIC IMPROVEMENT AND DESIGN

5.1 General Requirements

A. Plats Straddling Municipal Boundaries. Whenever access to the subdivision or development is required across land in another municipality, the Council may request assurance from that municipality's Attorney that access is legally established, and from its Engineer that the access road is adequately improved, or that a bond has been duly executed and is sufficient in amount to assure the construction of the access road. In general, lot lines should be laid out so as not to cross municipal, county or school district boundary lines.

B. Character of the Land. Land that the Council finds to be unsuitable for subdivision or development due to flooding, improper drainage, steep slopes, rock formations, adverse earth formations or topography, utility easements, or other features which will be harmful to the safety, health, and general welfare of the present or future inhabitants of the subdivision or development and/or its surrounding areas, shall not be subdivided or platted unless adequate methods are formulated by the owner and approved by the Council, upon recommendation of the City Engineer, to solve the problems created by the unsuitable land conditions.

C. Adequate Public Facilities Policy. The land proposed for subdivision or development must be served adequately by essential public facilities and services. Land shall not be approved for platting unless and until adequate public facilities exist or provision has been made for water facilities, wastewater facilities, drainage facilities and transportation facilities which are necessary to serve the development proposed, whether or not such facilities are to be located within the property being platted or offsite. This policy may be defined further and supplemented by other ordinances adopted by the City.

1. Conformance to Plans. Proposed public improvements shall conform to and be properly related to the Transportation and Public Facilities Element of the City's adopted Comprehensive Plan, other adopted master plans for public facilities and services, and applicable capital improvements plans.

2. Water. All platted lots must be connected to a public water system, which is capable of providing water for health and emergency purposes, including adequate fire protection.

3. Wastewater. All platted lots must be served by an approved means of waste water collection and treatment. The City may require the phasing of development and/or improvements in order to maintain adequate wastewater capacity. Additional standards and requirements are defined in Section 5.9.

4. Streets. Proposed streets shall provide a safe, convenient and functional system for vehicular and pedestrian circulation and shall be properly related to the Plan and any amendments thereto, and shall be appropriate for the particular traffic characteristics of each proposed subdivision or development. Additional standards and requirements are defined in Section 5.7.

5. Drainage. Drainage improvements shall accommodate potential runoff from the entire upstream drainage area and shall be designed to prevent overloading the capacity of the downstream drainage system. The City may require the phasing of development, the use of control methods such as retention or detention, and/or the construction of off-site drainage improvements in order to mitigate the impacts of the proposed development. Additional standards and requirements are defined in Section 5.9.

6. Other Facilities. Adequate sites and convenient access for schools, parks, playgrounds, and other community services indicated in the City's Comprehensive Plan shall be related to the character and uses of the surrounding properties in accordance with the intent, policies and provisions of this ordinance.

7. Phasing. The City may require the phasing of development or improvements in order to maintain current levels of service for existing public services and facilities or for other reasons based upon maintaining the health, safety and general welfare of the City's inhabitants. The Council shall determine whether the proposed public facilities and services are adequate pursuant to standards herein established.

D. Subdivision or Development Name. The proposed name of the subdivision or development shall not duplicate, or too closely approximate phonetically, the name of any other subdivision or development in the area covered by these regulations and shall, where possible correspond to named subdivisions or developments in the immediate vicinity. The Council shall have final authority to approve the name of the subdivision or development based upon the recommendation of the Administrator or City Engineer.

E. Survey

1. The Surveyor, responsible for the plat, shall place permanent monuments at each corner of the boundary survey of the subdivision or development. These monuments shall be a four (4) inch diameter concrete post three (3) feet long; a steel rod five-eighths (5/8") inch in diameter imbedded twelve (12") inches in the monument, flush with the top, placed in the exact intersecting points of the corner. The monuments shall be set at ground level or at such an elevation that they will not be disturbed during the construction,

and the top of the monument shall not be more than twelve (12) inches below finished ground level.

2. GPS monuments shall be constructed of a four (4) inch diameter reinforced concrete monument at least 6 feet deep set flush with the ground. A brass or aluminum disc shall be set in the top of the monument and shall have the monument number, elevation and registration number of the surveyor stamped in the disc. The surveyor shall determine the Texas State Plane Coordinates and elevation of the monument and file a survey report with the City showing this information.

3. Markers shall be set at all block corners, street and alley curve points and angle points along the boundaries and also within the subdivision. These markers shall be a five eighths (5/8) inch reinforcing bar, eighteen (18) inches long. The markers shall be set at ground level or at such an elevation that they will not be disturbed during the construction, and the top of the marker shall not be more than twelve (12) inches below finished ground level.

4. Where no bench mark is established or can be found within one thousand (1000) feet of the boundary of the subdivision, such bench marker shall be established to sea level datum. Said bench mark shall be established; shall be readily accessible and identifiable on the ground; and set as a separate monument of the same concrete construction as described for GPS monuments with the elevation engraved on a bronze plate embedded flush in the top surface of the monument. Large subdivisions may require more than one bench mark; in any event, such marks shall be no more than two thousand six-hundred forty (2,640) feet apart or within two thousand six-hundred forty (2,640) feet of a previously established bench mark. All such bench marks shall be recorded on the final plat. Where GPS monuments meet this requirement, no additional benchmarks are required..

5. All lot corners shall be located and marked with one half (½) inch reinforcing bar, eighteen (18) inches in length, and shall be placed flush with the ground or counter sunk, if necessary, in order to avoid being disturbed.

6. Iron rods, one-half (½") inch in diameter and eighteen (18) inches long, shall be placed on all boundary corners, block corners, curve points, and angle points in water line, sanitary sewer line and drainage facility easements as well as floodway boundaries.

F. Facility Design

1. Streets, thoroughfares, drainage facilities, water lines, sanitary sewer lines and other such facilities which are to be owned, operated and/or maintained

by the City of Ladonia shall be designed in accordance with the guidelines of the City of Ladonia Design Standards

2. The Design Standards are intended to be minimum requirements. The project developer shall be responsible for determining if more stringent requirements are necessary for a particular development.

3. In cases where the Design standards do not cover all aspects of a development, the developer will be expected to provide designs and facilities in accordance with good engineering practice and to cause to be constructed facilities utilizing first class workmanship and materials.

G. Floodplain Regulation. All subdivision or development activity as regulated by this Ordinance shall be subject to the Flood Damage Prevention Regulations, Article XXXXX of the City of Ladonia Code of Ordinances.

5.2 Lot Design and Improvement Standards

A. Lot Arrangement. The lot arrangement shall be such that there will be no foreseeable difficulties, for reasons of topography or other conditions, in securing building permits to build on all lots in compliance with the Zoning Regulations, Building Code and other applicable ordinances, laws and regulations. Driveway access shall be provided to buildings on the lots from an approved street, alley or public way.

B. Lot Dimensions. Lot dimensions shall comply with the minimum standards of the Zoning Regulations as determined in each district or the Planned Development District. All lots on building sites shall conform to the minimum standards for the area, width and depth prescribed by the Ladonia Zoning Regulations for the district or districts in which the subdivision or development is located. In general, lot lines shall be at right angles to street lines (or radial to curving street lines) unless a variation from this rule will give a better street or lot plan. Dimensions of corner lots shall be large enough to allow for erection of buildings. Depth and width of properties reserved or laid out for business, commercial, or industrial purposes shall be adequate to provide for the off-street parking, landscaping, and loading facilities required for the type of use and development contemplated, as established in the Zoning Regulations. Lot dimensions shall be measured at the property line, except that for residential lots located on cul-de-sac circles or at the corners of a loop street, lot width shall be measured at the front building line and one side lot line may be less than the minimum required by the zoning district, provided the lot meets width and area requirements.

In general, the depth of a residential lot should not exceed four times the width of the lot, unless topographic or environmental characteristics create a condition best addressed by an excessive lot depth.

C. Double Frontage Residential Lots. Double frontage and reversed frontage lots shall be avoided except where necessary to separate residential development from traffic arterials or to overcome specific disadvantages of topography and orientation. The City may impose additional buffering and/or screening requirements for these lots.

D. Soil Preservation and Final Grading. Top soil shall not be removed from residential lots or used as spoil, but shall be redistributed so as to provide at least six (6) inches of cover on the lots, parkways and medians. Permanent erosion control measures, shall be provided throughout the development prior to final acceptance of the improvements. Soil preservation shall consist of the following:

1. All street rights-of-way, regardless of slope, all finished grade slopes that are steeper than 1 foot vertical to 6 feet horizontal (6:1), and the flow lines of all drainage ditches and swales shall be completely covered with erosion control matting as specified in the North Texas Council of Governments Construction (N.C.T.C.O.G) BMP Manual.

2. Grass shall be established on the slopes of all drainage channels that are steeper than 6:1. Grass shall meet the requirements of the Standard Specifications of the Texas Department of Transportation.

3. Other erosion protection methods as described in the N.C.T.C.O.G. BMP Manual shall be used to control all erosion in the development. All erosion protection methods shall be approved by the City Engineer

E. Minimum Lot and Floor Elevations. Minimum lot and floor elevations shall be established as follows:

1. Lots abutting a natural or excavated channel shall meet the specific standards for flood hazard reduction established in § XXXX of the City of Ladonia Code of Ordinances.

2. Where lots do not abut a natural or excavated channel, minimum floor elevations shall be a minimum of one (1) foot above the street curb or edge of alley, whichever is higher, unless otherwise approved by the City's Engineering Division. A lot grading plan is required. With permission of the City Engineer, the minimum finished floor elevation may be lower than the street curb, roadway or alley provided the floor elevation is at least one-foot above the rim elevation of the downstream manhole of the sanitary sewer system that serves the lot.

3. Where lots are served by on-site sewerage facilities that rely on the gravity flow of wastewater, the minimum finished floor elevations shall be not less than 4.5 feet above the highest elevation of the ground at the drainfield, absorption bed or transpiration bed unless otherwise permitted by the City Engineer.

F. Debris and Waste. No cut trees, timber, debris, large rocks or stones, junk, rubbish or other waste materials of any kind shall be buried in any land, or left or deposited on any lot or street at the time of final acceptance by the City Engineer, and removal of those items and materials shall be required prior to such acceptance. No items and materials as herein described shall be left or deposited in any area of the subdivision or development at the time of expiration of any public improvement agreement or acceptance of dedication of public improvements, whichever is sooner. However, dirt or topsoil may be stockpiled on a property at a location approved by the City Engineer.

5.3 Non-residential Plats

A Design Principles. In addition to these regulations, which are appropriate to all platting, the applicant shall demonstrate to the satisfaction of the Council that the street, parcel, and block pattern proposed is specifically adapted to the uses anticipated and takes into account other uses in the vicinity. The following principles shall be observed:

1. Proposed non-residential parcels shall be suitable in area and dimensions to the types of non-residential development anticipated.

2. Street rights-of-way and pavement shall be adequate to accommodate the type and volume of traffic anticipated to be generated thereupon, but in no case shall be less than the design standards embodied in the Master Thoroughfare Plan.

3. Residential areas shall be protected from potential nuisance from a proposed non-residential plat by means of screening or other physical separation as further described in Chapter 20 of the Ladonia Zoning Regulations.

4. Streets carrying nonresidential traffic, especially truck traffic, shall not normally be extended to the boundaries of adjacent existing or future residential areas.

B Frontage and Access Standards. All non-residential lots established following the effective date of this ordinance shall meet the following frontage and access criteria:

1. Frontage - All non-residential lots abutting an arterial or higher thoroughfare shall have a minimum 200 linear feet. All non-residential lots abutting a collLadonia or lower thoroughfare shall have a minimum of 150 feet of frontage.

2. Curb Cuts - All non-residential lots shall have access to the public street system by a driveway onto a public street or, in certain instances subject to review by the City Engineer, by a driveway onto a dedicated mutual access

easement. Curb cuts shall be located in accordance with the Master Thoroughfare Plan, Engineering Design Manual and other applicable ordinances. Access drives shall be a minimum fifty (50) feet in distance from any street intersection and a minimum one hundred (100) feet from any intersection which is signalized or which in the opinion of the City Engineer will require future signalization, unless approved by the City Engineer.

3. Median Openings - Median openings shall be located in accordance with the Master Thoroughfare Plan and other applicable ordinances. Generally, median openings shall not be spaced closer than 350 feet centers nor closer than 250 feet from an intersection. If direct access to a median opening is not available, lots shall have indirect access through a mutual access easement between adjacent properties. Such mutual access shall be indicated on the plat whenever possible.

5.4 Sidewalks, Bikeways, Alleys and Landscaping

5.4.1 Sidewalks and Bikeways

A. Sidewalks. Sidewalks are required along all streets.

1. Sidewalks shall be constructed of 2,000 psi concrete having a width of not less than four (4') feet and a minimum thickness of four (4") inches.

2. The sidewalk shall be constructed prior to the issuance of a Certificate of Occupancy.

3. In residential districts the sidewalks shall be (4') feet wide located (1') foot off of the property line or (6') feet wide located adjacent to the curb.

4. In All other districts the sidewalks shall be a minimum of (6') feet wide.

G. Pedestrian Accesses. The Council may require, in order to facilitate pedestrian access from the streets to schools, parks, playgrounds, or other nearby streets, perpetual unobstructed easements at least fifteen (15) feet in width. Easements shall be indicated on the plat.

H. Bikeways. Hike and bike sidewalks (bikeways) shall be constructed along streets designated for hike and bike trails. Bikeways shall be constructed in the manner and locations specified in the Engineering Design Manual. Bikeways shall be built by the owner at the time of site development, or the owner may petition for the City to construct such facilities, subject to escrow policies stated in section 6 of these regulations.

I. Alleys

1. Commercial and industrial areas: Alleys shall be provided in commercial and industrial districts where other provisions are not made for service access; off street loading, parking, and fire fighting.

2. Residential areas: Alleys may be provided in residential areas.

3. Construction: Alleys shall be constructed according to the standards for local streets in residential estates subdivision except in commercial and industrial areas where alleys shall be constructed according to the standards for their service function.

4. Intersections: Alleys shall be perpendicular to streets at intersections. Minimum radius of pavement of street-alley intersections shall be eight (8) feet.

5. Dead end alleys: Dead end alleys shall be provided with cul-de-sacs with a minimum paved surface radius of thirty (30') feet.

E. Landscaping. Landscaping, buffering and screening improvements shall be required along certain roadways in conformance with standards established in Section XXX of the Zoning Regulations, or as provided in Planned Development Districts established pursuant to the City's Zoning Ordinance.

5.5 Fire Lanes and Fire Department Access

A. Access to Fire Hydrants and other Fire Suppression Equipment. All fire hydrants shall be accessible by the City's fire trucks and equipment from a dedicated public street or a fire lane. The distance from fire hydrants to the edge of pavement for public streets shall not exceed five feet unless otherwise permitted by the City Engineer. The distance from the edge of the fire lane to fire hydrants and standpipe and fire department connections shall not exceed five feet unless otherwise permitted by the Fire Chief.

B. Fire Lane Design Requirements. The width of all fire lanes shall not be less than twenty-four feet wide. Fire lanes shall be paved with a minimum of six inches of reinforced concrete. The minimum inside radius of a curve or turn shall not be less than 30 feet. A standard SU-20 design vehicle shall be able to travel from a public street along all fire lanes, be able to reach within five feet of all fire hydrants, and exit back onto a public street without backing up.

C. Dead End Fire Lanes. Dead end fire lanes may be used only to obtain the required access to buildings, not to fire hydrants or fire department connections and the maximum length of a dead end fire lane shall not exceed 150 feet. All dead-end fire lanes shall include a turn around and the end of the fire lane for a SU-20 vehicle with vehicle backing allowed.

5.6 Water Facilities Standards

A. Adequate Water Facilities. Water systems serving the subdivision or development shall connect with the City's water supply and distribution system. Water facilities shall be installed to adequately serve each lot and shall be sized to conform to the City's Water Distribution Master Plan and other requirements of the City. The City may require owners to provide a water study, including adequate engineering data to support water demand projections, before final plans will be approved.

B. Design and Construction Requirements. Design of water systems shall be in accordance with the latest design criteria set forth by TCEQ. No water system will be constructed unless all plans have been reviewed and approved by the City to assure compliance with these requirements. All design and construction will be done under the inspection of the City and in accordance with established City policies and practices.

1. Water services for each lot shall be a minimum of ¾" type K copper. Each service shall be provided with a brass meter valve contained inside a meter box. Service to each lot shall have a maximum cover of eighteen (18") inches.

2. Valves shall be located at maximum intervals of 600' feet on 12" and smaller lines. Valves shall be furnished with extensions such that the working nut is a maximum of 48" below grade.

3. Water lines shall be installed with thirty (30") inches minimum cover over the top of the pipe,

4. Water lines shall be disinfected in accordance with TCEQ Standards.

5. PVC pipe shall have four (4) inch sand bedding, and twelve (12") inches of sand over top of pipe.

C. Extension Policy. The developer shall extend all water mains and appurtenances necessary to connect the development with the City's water supply and distribution system and shall extend such mains and appurtenances to all property lines of the subdivision or development to allow connection to these facilities by adjoining property owners in accordance with the City's approved plans. Authority to extend water mains to serve newly subdivided or platted land shall be granted by the City only upon a determination by the Administrator that all facilities necessary to adequately serve the development are in place or will be in place prior to the issuance of occupancy permits for structures developed on such land.

D. Minimum Size Mains. Water mains shall be located and sized in accordance with the TCEQ. However, the minimum water main shall be eight (8) inches nominal internal diameter and shall be UL and NSF certified.

E. Fire Protection. Water service must be sufficient to meet fire flow requirements of the proposed development for domestic and industrial purposes, except where a suitable alternative means of fire protection is approved by the City.

F. Fire Hydrants - Number and Locations. A sufficient number of fire hydrants shall be installed to provide hose stream protection for every point on the exterior wall of the building. There shall be sufficient hydrants to concentrate the required fire flow, as recommended by the publication "Fire Suppression Rating Schedule" published by the Insurance Service Office, around any building with an adequate flow available from the water system to meet this required flow. In addition, the following guidelines shall be met or exceeded:

1. Single Family and Duplex Residential. As the property is developed, fire hydrants shall be located at all intersecting streets and at intermediate locations between intersections at a maximum spacing of 500 feet between fire hydrants as measured along the route that fire hose is laid by a fire vehicle.

2. Multi-Family Residential. As the property is developed, fire hydrants shall be located at all intersecting streets and at intermediate locations between intersections at a maximum spacing of 300 feet as measured along the length of the center line of the roadway, and the front of any structure at grade and shall be no further than 400 feet from a minimum of two (2) fire hydrants as measured along the route that a fire hose is laid by a fire vehicle.

3. Other Districts. As the property is developed, fire hydrants shall be located at all intersecting streets and at intermediate locations between intersections at a maximum spacing of 300 feet as measured along the length of the center line of the roadway, and the front of any structure at grade and shall be no further than 400 feet from a minimum of two (2) fire hydrants as measured along the route that a fire hose is laid by a fire vehicle.

4. Protected Properties. Fire hydrants required to provide a supplemental water supply for automatic fire protection systems shall be within 100 feet of the fire department connection for such system.

5. Fire hydrants shall be installed along all fire lane areas as follows:

Non-Residential Property or Use

a. Within 150 feet of the main entrance.

b. Within 100 feet of any fire department connection.

c. At a maximum intermediate spacing of 300 feet as measured along the length of the fire lane.

6. Generally, no fire hydrant shall be located closer than fifty (50) feet to a non-residential building or structure unless approved by the City Engineer.

7. In instances where access between the fire hydrant and the building which it is intended to serve may be blocked, extra fire hydrants shall be provided to improve the fire protection. Railroads, expressways, major thoroughfares and other man-made or natural obstacles are considered as barriers.

8. All portions of all buildings in single-family residential districts shall be located within a three hundred-foot hose lay from fire lane or public roadway having a fire hydrant spacing meeting the requirements of these regulations.

9. All portions of all buildings in all other districts shall be located within a three hundred-foot hose lay from fire lane or public roadway having a fire hydrant spacing meeting the requirements of these regulations.

10. The hose lay shall be measured as a fire hose would be laid from the fire lane or roadway along aisles that are at least 24-feet wide and that are not obstructed by fences, buildings, stored materials, railroads or other obstructions.

5.7 Sanitary Sewer Facilities Standards

A. Adequate Sewage Facilities. Sanitary sewer facilities serving the subdivision, development or addition shall connect to the City's sanitary sewer system or other public sewerage treatment facility, except as provided in subsection D. Sewage systems shall be installed to adequately serve each lot and shall be sized accordingly. All additions to the sanitary sewage system shall conform to the City's "Master Sewer Plan" and other requirements of the City. The City may require a sanitary sewer study, including adequate engineering data, to support projected sewer flows before final plan approval. The proposed wastewater discharge of a proposed development shall not exceed the capacity of the wastewater system based upon required studies.

B. Design and Construction Requirements. Design of sanitary sewers shall be in accordance with the City of Ladonia's Design Standards. No sewer system will be constructed unless all plans have been reviewed and approved by the City to assure compliance with these requirements. All design and construction will be done under the inspection of the City and in accordance with established City policies and practices.

C. Extension Policy. The developer shall extend all sanitary sewer mains and appurtenances necessary to connect the development with the City's wastewater system. Sanitary sewer mains shall be extended to all property lines of the subdivision or development to allow connection to these facilities by adjacent property owners in accordance with approved plans. Authority to extend wastewater mains to serve newly subdivided or platted land shall be granted by the City only upon a determination by the Administrator that all facilities necessary to adequately serve the development are in place or will be in place prior to the issuance of occupancy permits for structures developed on such land.

D. On-Site Treatment.

1. The owner and/or developer of the subdivision or development shall construct the necessary water facilities to serve the subdivision. If it is practical to construct sanitary sewer facilities and connect to a sanitary sewer facility with approved treatment facilities, then the owner and/or developer shall construct the necessary sanitary sewer facilities to properly serve the subdivision.

2. No permit shall be issued by Fannin County for the installation of a septic tank(s) if adequate sewer service is or will be feasibly available within two hundred (200') feet of the building to be served..

3. If the City deems that it is not practical to connect to a sanitary sewer facility that will treat the sewage for the subdivision., then the area may be served by an approved on-site sewerage facility for the individual lots as licensed by Fannin County and approved by regulatory authorities having jurisdiction over such facilities. The City may require a study to make such determination.

4. All septic tank systems must comply with "Construction Standards for Private Sewage Facilities", published by the Texas Commission of Environmental Quality (TCEQ).

5. If a sanitary sewage treatment system is to be installed the plans for such system shall be approved by the TCEQ and a permit secured from the TCEQ prior to approval of the final plat by the City Council.

E. Design Standards.

1. All pipe joints shall be of the rubber ring gasket type conforming to the applicable ASTM standards.

2. The sewage collection system shall be designed to handle the anticipated flow of sewage from the subdivision, including development to future sections of the same subdivision. Recognized engineering design criteria in accordance with the requirements of the TCEQ shall be used to design the system.

3. All sewer lines shall be on such a grade as to provide a minimum velocity of two (2') feet per second with using an "n" value of 0.010 in the Manning Formula.

4. The minimum size line, excluding house service lines, shall be six (6") inches in diameter.

5. Manholes shall not be spaced more than five hundred (500') feet apart and shall be provided at all changes in grade, direction and pipe size.

6. The City of Ladonia may require larger sewer lines than are necessary to serve the subdivision and future development, and adjacent areas. In the event that larger lines are required, then the developer shall be entitled to participating aid from the City on oversized lines when City funds become available.

7. Should a lift station, either temporary or permanent be necessary to provide sanitary sewer service to the subdivision, the developer shall construct the station and all appurtenances at his own expense. If and when the lift station is no longer needed, the installation will, unless other provisions are made. remain the property of the City of Ladonia for reuse or disposal.

8. Sewer service lines for each lot shall have a minimum internal diameter of four (4") inches. Minimum cover at the property line shall be two (2') feet. Tracer tape shall be installed to indicate the location of the sewer stub out.

9. Offsite sewerage utilities shall be constructed by developers at no expense to the City.

10. Prior to acceptance, the sanitary sewers shall be subjected to an air leakage test and mandrel test.

11. The City Engineer may require, at the developer's expense, a TV examination of the sewer prior to acceptance.

12. The design of sewers shall conform to the criteria set forth in "WPCF Manual of Practice No. 9", latest edition as published by the American Society of Civil Engineers and the Water Pollution Control Federation and "Design Criteria for Sewage Systems" published by the TCEQ.

5.8 Roadway Facilities Standards

5.8.1 Streets and Thoroughfares

A. Responsibility for Adequacy of Streets and Thoroughfares. The property owner shall assure that the subdivision or development is served by adequate streets and thoroughfares, and shall be responsible for the costs of rights-of-way and street improvements, in accordance with the following policies and standards, and subject to the City's participation in the costs of oversize facilities.

The subdivider shall construct all streets to city standards in rights-of-way as required by the Thoroughfare Plan or other valid development plans approved by the City, subject to participation policies stated in this ordinance. Streets (including sidewalks) which deadend at power lines, railroad, or similar rights-of-way, and are intended for future extension shall be constructed in the full right-of-way as required by the Thoroughfare Plan for half the distance across such right-of-way for each side. Developers of property abutting only one side of a street are responsible for the minimum paving widths prescribed by City regulations.

B. General Adequacy Policy. Every subdivision or development shall be served by streets and thoroughfares adequate to accommodate the vehicular traffic to be generated by the development. Proposed streets shall provide a safe, convenient and functional system for traffic circulation, and shall be properly related to the City's Thoroughfare Plan, road classification system, master plan and any amendments thereto, and shall be appropriate for the particular traffic characteristics of each development.

C. Road Network. New subdivisions and developments shall be supported by a road network having adequate capacity, and safe and efficient traffic circulation. The adequacy of the road network for developments of more than 75 dwelling units, or for developments involving collLadonia or arterial streets not appearing on the City's adopted Thoroughfare plan, shall be demonstrated by preparation of a traffic impact analysis prepared in accordance with section 5.7.5, which takes into consideration the need to accommodate traffic generated by the development, land to be developed in common ownership and other developed property. In the event that the property to be developed is intended as a phase in a larger development project, or constitutes a portion of the land to be ultimately developed, the City may require a demonstration of adequacy pursuant to this section for additional phases or portions of the property as a condition of approval for the proposed plat.

D. Approach Roads and Access. All subdivisions or developments must be connected to the City's improved thoroughfare and street system by two or more approach roads of such dimensions and approved to such standards as are hereinafter set forth. Connection of a subdivision to the City's street system with only one approach will require special approval by the City. Requirements for dedication of rights-of-way and improvement of approach roads may be increased depending on the density or

intensity of the proposed development if such need is demonstrated by traffic impact analysis. Access to all lots therein must be suitably improved or secured by provisions contained in these regulations.

E. Off-site Improvements. Where traffic impact analysis demonstrates the need for such facilities, the property owner shall make such improvements to off-site collLadonia and arterial streets and intersections as are necessary to mitigate traffic impacts generated by the development or related developments. The City may participate in the costs of oversize improvements with the subdivider or developer pursuant to Section 6.1.

F. Street Dedications.

1. Dedication of Right-of-Way. The property owner shall provide all rights-of-way required for existing or future streets, and for all required street improvements, including perimeter streets and approach roads, as shown in the Thoroughfare Plan or other valid development plans approved by the Planning and Zoning Commission or City Council.

   The subdivider shall provide all right-of-way required for existing or future streets, including perimeter streets, as shown in the Thoroughfare Plan or other valid development plans approved by the City. In the case of perimeter streets, half of the total required right-of-way for such streets shall be provided. However, in some instances more than half shall be required, depending on the actual or proposed alignment of the street. A minimum parkway width of ten feet shall be provided along existing constructed thoroughfares. In such cases, no additional right-of-way will be required, except at intersections or other locations when deemed necessary by the City's consulting engineer.

2. Perimeter Streets. Where an existing half-street is adjacent to a new subdivision, development or addition, the other half of the street shall be dedicated and improved by the developer of the subdivision, development or addition.

3. Slope Easements. The dedication of easements, in addition to dedicated rights-of-way shall be required whenever, due to topography, additional width is necessary to provide adequate earth slopes. Such slopes shall not be in excess of four (4) feet horizontal to one (1) foot vertical.

4. Access to Public Facilities. In cases where a subdivision or development contains or abuts a school, park or playground site, the subdivider shall provide and dedicate a normal residential street and provide for the cost of paving the street and the full cost of all utilities necessary.