

BARLING, ARKANSAS

ORDINANCE NO. 138

AN ORDINANCE  
TO ESTABLISH RULES, REGULATIONS AND POLICIES  
TOWARD DEDICATION, ACCEPTANCE, WIDENING, IMPROVEMENTS AND VACATION  
OF STREETS AND ROADS WITHIN THE CITY OF BARLING, ARKANSAS  
AND  
TO ESTABLISH THE GENERAL LOCATION OF PROPOSED STREETS  
IN ADDITION TO LOCATION OF EXISTING STREETS  
AND  
TO REQUIRE CONFORMANCE TO THE  
EXPRESS INTENT AND PURPOSE OF A MASTER STREET PLAN  
AND  
TO OTHERWISE IDENTIFY AND DESIGNATE THE  
GENERAL LOCATION, CHARACTERISTICS AND FUNCTIONS OF ALL STREETS  
AND  
FOR OTHER RELATED PURPOSES

BE IT ENACTED AND ORDAINED BY THE BOARD OF DIRECTORS OF THE CITY  
BARLING, ARKANSAS, that (page one of Barling Master Street Plan Ordinance  
to follow thereafter).

BARLING MASTER STREET PLAN

Purpose

The City of Barling, Arkansas wishes to establish a set of policies through the Barling Master Street Plan, that will provide for the sound design and construction of both new and existing streets in the City. Additionally, the City is expressing its policies toward dedication, acceptance, widening, and the vacation of streets within the City. The Master Street Plan shall show the general location of proposed streets as well as the location of existing streets. It is the policy of the City of Barling that all new streets and improvements to existing streets shall conform to the expressed intent and standards of the Plan.

Authority

Act 186 of 1957, Arkansas Statutes 19-2828, empowers Arkansas Cities of

the first and second class to prepare a Master Street Plan once such a city establishes a Planning Commission. The statutes empowers a city of the first and second class to identify and designate the general location, characteristics, and functions of streets in addition to providing for their improvements, dedications, widening, and vacation.

#### Jurisdiction

The Barling Master Street Plan will apply and be utilized within the territorial jurisdiction of Barling as shown on the Planning Area Map which is on file with the City Clerk and the Sebastian County Recorder.

#### Definitions

1. Arterial Street - Principal Arterial Streets

Streets that serve major centers of activity, carry the highest traffic volumes entering and leaving the City, and provides a by-pass of the urban area.

2. Arterial Street - Minor Arterial Streets

Streets that connect Principal Arterial Streets, have lower traffic volumes, and that distribute travel to smaller geographic areas but do not penetrate neighborhoods.

3. City

The City of Barling, Arkansas.

4. Collector Streets

Streets that provide land access service and traffic circulation within neighborhoods. These streets also collect local traffic and distribute it to the Arterial Streets.

5. Functional Classification

A description of streets based on their character of service. The Classification is grouped into three major classes. Arterial; Collector; and Local Streets.

6. Local Streets

All streets that are not otherwise classified. These streets provide

access directly to abutting land.

7. Map

The officially adopted element of the Master Street Plan that graphically depicts the location and classification of streets.

8. Plan

The completed adopted instrument of the City consisting of a Map and Text that states the policies and desires governing the development of new streets and the extension, improvement or otherwise change in character of existing streets.

9. Planning Commission

The appointed body of local individuals who administer the implementation of City plans and development policies.

10. Text

The narrative element of the officially adopted Barling Master Street Plan that describes the City's policies toward street development and that provides the guidance for street construction and improvement. The Text reflects the improvement standards contained in the Barling Subdivision Regulations.

Transportation Issues

The traffic and transportation issues that currently face the City concern the construction of City streets and the layout and design of new streets within subdivision. Barling is a rapidly growing area that will reflect the continued growth in the Fort Smith metropolitan area. Because of this rapid development, the City is concerned about the function and adequacy of new subdivision streets. The Barling Master Street Plan illustrates the City's policy on general locations of the streets that will be necessary to build in these new areas.

Secondly, the City wishes to establish a through east and west truck route along the southern part of the City. This route can be seen on the Plan as a Minor Collector running east and west off of State Highway 255. The intent is to provide better access to State Highway 59 that crosses the

Arkansas River at Lock and Dam 13. In addition, the removal of through trucks that originate south and southwest of Barling, from State Highway 22 will aid to the safe and efficient traffic flow in Barling.

Other policies of the City regarding the location, design, construction, widening, and vacation of City streets are:

1. No private streets except driveways and access roads to single residence.
2. Widening - streets improved to specifications contained in plan and subdivision regulations  
additional right-of-way that will be necessary must be dedicated to City
3. All street extension plans be brought to the Planning Commission and through the Subdivision Review Process.
4. Design and construction plans for all street improvements be brought before the Planning Commission and the City Engineer or its representative.
5. All street vacation requests be brought before the Planning Commission.
6. Intersections of new streets to existing streets are to be at an angle between  $75^{\circ}$  and  $90^{\circ}$ .
7. There will be no 5 legged intersections constructed.

IMPROVEMENTSTANDARDDESIGN SPEED (miles per hour)

|                    |       |
|--------------------|-------|
| LOCAL ROADS        | 25    |
| COLLECTOR ROADS    | 30    |
| MINOR ARTERIAL     | 40-45 |
| PRINCIPAL ARTERIAL | 45-55 |

MINIMUM LENGTH OF CUL-DE-SAC

|           |                                     |
|-----------|-------------------------------------|
| PERMANENT | NOT EXCEEDING 600 FEET<br>IN LENGTH |
|-----------|-------------------------------------|

MINIMUM RADIUS (in feet)

|             |    |
|-------------|----|
| AT PAVEMENT | 50 |
|-------------|----|

## CONSTRUCTION DESIGN STANDARDS

SUBGRADE, THICKNESS 12"

BASE, THICKNESS 8" with .35" prime coat

SURFACE, THICKNESS 3"

COMPACTION (Modified Proctor Method)

Subgrade 95%  
Base 100%  
Surface 93%

SIDEWALK - minimum depth not less than 4" Portland Cement reinforced with 6 x 6 x 10/10 welded wire fabric throughout. Expansion joints every 20 linear ft., at least ½" wide cutting entirely through sidewalk. Surface to be blocked off in 4 ft. squares by contraction points.

NOTE - The above construction design standards are given as a minimum. Proposed development will be reviewed on a case by case basis where the construction standards may be increased by the Planning Commission based on such factors as topography, soil type, percent trucks, and traffic.

IMPROVEMENTSTANDARDMINIMUM RADIUS OF CURVE (in feet)

|                    |     |
|--------------------|-----|
| LOCAL ROAD         | 200 |
| COLLECTOR ROAD     | 300 |
| MINOR ARTERIAL     | 400 |
| PRINCIPAL ARTERIAL | 500 |

MINIMUM LENGTH OF VERTICAL CURVES

|                    |                             |
|--------------------|-----------------------------|
| LOCAL ROAD         | 100 FEET, BUT NOT LESS THAN |
| COLLECTOR ROAD     | 20 FEET FOR EACH ALBEGRAIC  |
|                    | DIFFERENCE IN GRADE         |
| MINOR ARTERIAL     | 200 FEET, BUT NOT LESS THAN |
|                    | 50 FEET FOR EACH 1 PER CENT |
| PRINCIPAL ARTERIAL | 300 FEET, BUT NOT LESS THAN |
|                    | 50 FEET FOR EACH ABEGRAIC   |
|                    | DIFFERENCE IN GRADE         |

MINIMUM LENGTH OF TANGENTS BETWEEN RESERVE CURVES (in feet)

|                    |                               |
|--------------------|-------------------------------|
| LOCAL ROAD         | DEPENDS UPON SPEED AND DEGREE |
| COLLECTOR ROAD     | OF CURVATURE, BUT IN NO CASE  |
| MINOR ARTERIAL     | SHOULD IT BE LESS THAN 200'.  |
| PRINCIPAL ARTERIAL |                               |

MINIMUM SIGHT DISTANCE (in feet)

|                    |     |
|--------------------|-----|
| LOCAL ROAD         | 150 |
| COLLECTOR ROAD     | 200 |
| MINOR ARTERIAL     | 250 |
| PRINCIPAL ARTERIAL | 275 |

LOCAL

GEOMETRIC DESIGN STANDARDS

SERVICE VOLUME - 2600 vpd

SPEED - less than 25 mph

TRAFFIC LANES - 2-11½ ft. thru lanes

PARKING LANES - not provided or controlled except where necessary

PAVED WIDTH - 27 ft. (back to back)

RIGHT-OF-WAY - 50 ft. minimum

SIGHT DISTANCE - minimum stopping sight distance 150 ft.

MAXIMUM GRADE - 12%

CROWN - minimum height of curb or 6"

SIDEWALKS - minimum one 4 ft. sidewalk

CONSTRUCTION DESIGN STANDARDS

SUBGRADE, THICKNESS 8"

BASE, THICKNESS 6" with .35 gals. per sq. yd.

SURFACE, THICKNESS 2"

COMPACTION (Modified Proctor Method)

|          |     |
|----------|-----|
| Subgrade | 95% |
| Base     | 95% |
| Surface  | 93% |

SIDEWALK - minimum depth not less than 4" Portland Cement reinforced with 6 x 6 x 10/10 welded wire fabric throughout. Expansion joints every 20 linear ft., at least ½" wide cutting entirely through sidewalk. Surface to be blocked off in 4 ft. squares by contraction points extending at least 3" into concrete.

## COLLECTOR

GEOMETRIC DESIGN STANDARDS

SERVICE VOLUME - 3900 vpd

SPEED - 30 mph

TRAFFIC LANES - 2-11 ft. lanes, turn lane at intersection when necessary

PARKING LANES - 11 ft. lane when necessary; no parking when turn lane provided

PAVED WIDTH - 37 ft. (back to back)

RIGHT-OF-WAY - 60 ft.

SIGHT DISTANCE - minimum stopping sight distance 200 ft.

MAXIMUM GRADE - 10%

CROWN - minimum height of curb or 6"

SIDEWALKS - minimum one 4 ft. sidewalk

CONSTRUCTION DESIGN STANDARDS

SUBGRADE, THICKNESS 8"

BASE, THICKNESS 6" with .35 gals. per sq. yd.

SURFACE, THICKNESS 2" when allowable weight under 12 tons  
3" when allowable weight over 12 tons

COMPACTION (Modified Proctor Method)

|          |     |
|----------|-----|
| Subgrade | 95% |
| Base     | 95% |
| Surface  | 93% |

SIDEWALK - minimum depth not less than 4" Portland Cement reinforced with 6 x 6 x 10/10 welded wire fabric throughout. Expansion joints every 20 linear ft., at least  $\frac{1}{2}$ " wide cutting entirely through sidewalk. Surface to be blocked off in 4 ft. squares by contraction points extending at least 3" into concrete.

## ARTERIAL (MINOR)

GEOMETRIC DESIGN STANDARDS

SERVICE VOLUME - 11,600 vpd

SPEED - 40 - 45 mph

TRAFFIC LANES - 4-12 ft. thru lanes; 4-11 ft. lanes and one 10 ft. left turn lane at intersections where necessary

PARKING LANES - none

PAVED WIDTH - 52 ft. (back to back to curbs)

RIGHT-OF-WAY - 80 ft. (for intersection widening)

SIGHT DISTANCE - minimum stopping sight distance 275'

MAXIMUM GRADE - 7%

CROWN -  $\frac{1}{4}$ " per foot

SIDEWALKS - 4 ft. minimum sidewalks on each side; consideration to widening to be given when in vicinity of schools or where high pedestrian traffic occurs

CONSTRUCTION DESIGN STANDARDS

SUBGRADE, THICKNESS 12"

BASE, THICKNESS 6" with .35 gals. per sq. yd.

SURFACE, THICKNESS 3"

COMPACTION (Modified Proctor Method)

|          |     |
|----------|-----|
| Subgrade | 95% |
| Base     | 95% |
| Surface  | 93% |

SIDEWALK - minimum depth not less than 4" Portland Cement reinforced with 6 x 6 x 10/10 welded wire fabric throughout. Expansion joints every 20 linear ft., at least  $\frac{1}{2}$ " wide cutting entirely through sidewalk. Surface to be blocked off in 4 ft. squares by contraction points extending at least 3" into concrete.

## ARTERIAL (PRINCIPAL)

GEOMETRIC DESIGN STANDARDS

SERVICE VOLUME - 16,000 vpd

SPEED - 45 - 55 mph

TRAFFIC LANES - 2-12 ft. thru lanes and 2-17 ft. thru lanes; 4-12 ft. lanes and one 10 ft. left turn lane at intersections where necessary, or 4-12 ft. lanes and one 10 ft. continuous lane.

PARKING LANES - none

PAVED WIDTH - 62 ft.

RIGHT-OF-WAY - 80 ft.

SIGHT DISTANCE - minimum stopping sight distance 300'

MAXIMUM GRADE - 7%

CROWN -  $\frac{1}{4}$ " per foot

SIDEWALKS - 4 ft. minimum sidewalks on each side; consideration to be given to widening in vicinity of schools or where high pedestrian traffic occurs

CONSTRUCTION DESIGN STANDARDS

SUBGRADE, THICKNESS 12"

BASE, THICKNESS 8" with .35 gals. per sq. yd.

SURFACE, THICKNESS 3"

COMPACTION (Modified Proctor Method)

|          |     |
|----------|-----|
| Subgrade | 95% |
| Base     | 95% |
| Surface  | 93% |

SIDEWALK - minimum depth not less than 4" Portland Cement reinforced with 6 x 6 x 10/10 welded wire fabric throughout. Expansion joints every 20 linear ft., at least  $\frac{1}{2}$ " wide cutting entirely through sidewalk. Surface to be blocked off in 4 ft. squares by contraction points extending at least 3" into concrete.

## COLLECTOR ROAD STANDARDS

SERVICE VOLUME - 5400 vpd

SPEED - 30 - 35 mph

TRAFFIC LANES - 2-11 ft. thru lanes; parking lanes to be dropped at inter-  
sections to provide for left turn lanes where necessary;  
can be converted to 4-11 ft. thru lanes

PARKING LANES - 2-11 ft. lanes; can be used as traffic lanes

PAVED WIDTH - 48 ft. (back to back to curbs)

RIGHT-OF-WAY - 70 ft.

SIDEWALKS - 4 ft. minimum sidewalks on each side; consideration to be  
given for widening in vicinity of schools or where high pedestrian  
traffic occurs.

## CONSTRUCTION DESIGN STANDARDS

SUBGRADE, THICKNESS 12"

BASE, THICKNESS 6" with .35 gals. per sq. yd.

SURFACE, THICKNESS 3"

COMPACTION (Modified Proctor Method)

|          |     |
|----------|-----|
| Subgrade | 95% |
| Base     | 95% |
| Surface  | 93% |

SIDEWALK - minimum depth not less than 4" Portland Cement reinforced with  
6 x 6 x 10/10 welded wire fabric throughout. Expansion joints  
every 20 linear ft., at least  $\frac{1}{2}$ " wide cutting entirely through  
sidewalk. Surface to be blocked off in 4 ft. squares by contraction  
points extending at least 3" into concrete.

INDUSTRIAL  
GEOMETRIC ROAD DESIGN STANDARDS

| <u>IMPROVEMENT</u>                      | <u>STANDARDS</u> | <u>STANDARD</u> |
|---|------------------|-----------------|
| <hr/>                                   |                  |                 |
| MINIMUM WIDTH RIGHT-OF-WAY (in feet)    |                  |                 |
| <hr/>                                   |                  |                 |
| LOCAL ROAD                              |                  | 50              |
| COLLECTOR ROAD                          |                  | 60              |
| MINOR ARTERIAL                          |                  | 80              |
| PRINCIPAL ARTERIAL                      |                  | 80              |
| <hr/>                                   |                  |                 |
| MINIMUM PAVEMENT WIDTH (in feet)        |                  |                 |
| <hr/>                                   |                  |                 |
| LOCAL ROAD                              |                  | 27 W/C**        |
| COLLECTOR ROAD                          |                  | 37 W/C          |
| MINOR ARTERIAL                          |                  | 52 W/C          |
| PRINCIPAL ARTERIAL                      |                  | 62 W/C          |
| <hr/>                                   |                  |                 |
| **WITH CURBS (concrete mountable curbs) |                  |                 |
| <hr/>                                   |                  |                 |
| MAXIMUM GRADE (percent)                 |                  |                 |
| <hr/>                                   |                  |                 |
| LOCAL ROAD                              |                  | 10              |
| COLLECTOR ROAD                          |                  | 7               |
| MINOR ARTERIAL                          |                  | 5               |
| PRINCIPAL ARTERIAL                      |                  | 5               |
| <u>MINIMUM GRADE</u>                    |                  | 5               |

The provisions of this ordinance are hereby declared to be severable and a decision by any court of competent jurisdiction that a provision of this ordinance or any application thereof is illegal, invalid or unconstitutional, shall not affect the legality, validity or constitutionality of the remaining provisions or applications of this ordinance. All ordinances and parts of ordinances in conflict with this ordinance are hereby repealed.

PASSED AND APPROVED this 21<sup>st</sup> day of September, 1982.



APPROVED:

Jerry Barber  
MAYOR

ATTEST:

Shula Fertig  
CITY CLERK