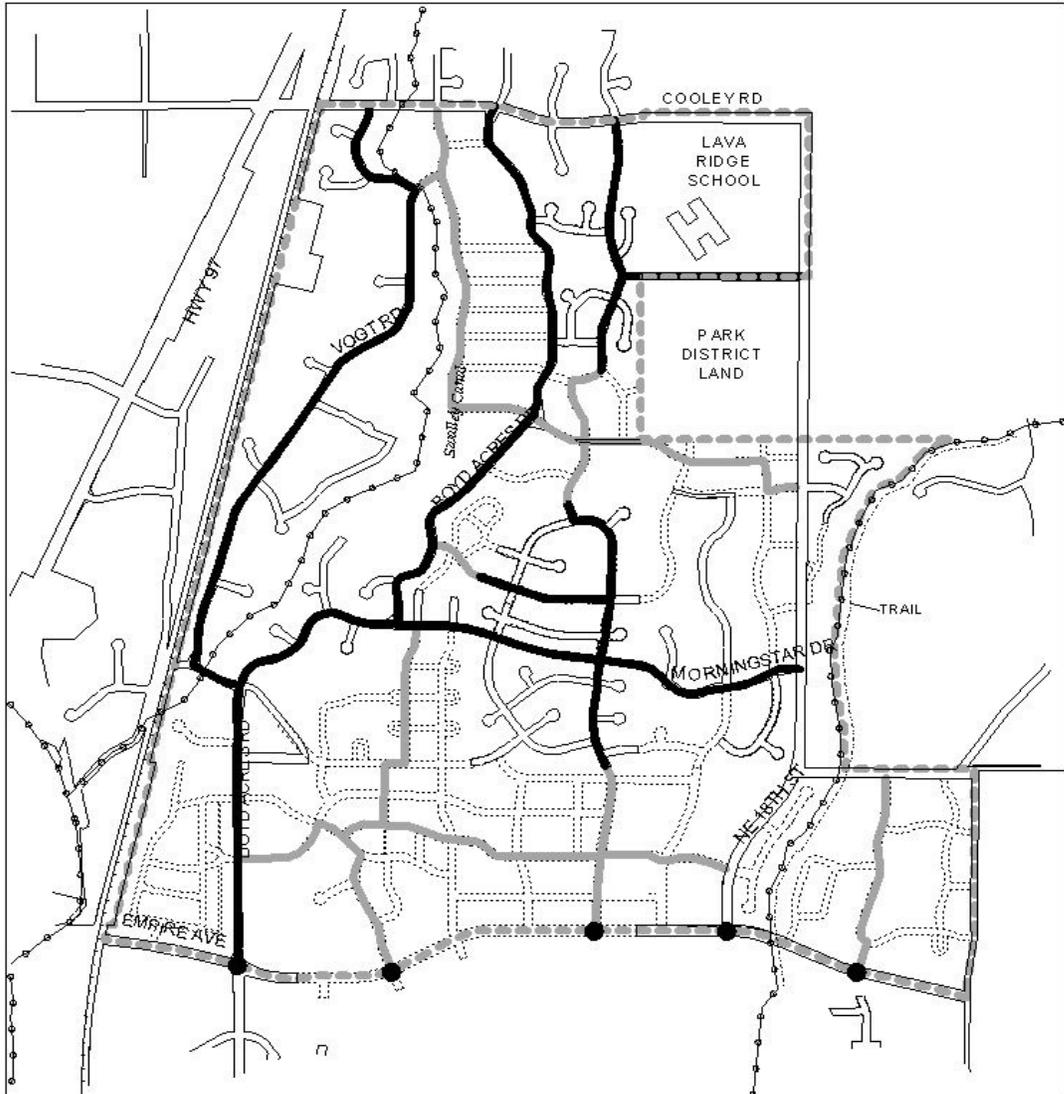


Bend Area General Plan

APPENDIX B: Lava Ridge Refinement Plan

LAVA RIDGE REFINEMENT PLAN

NOVEMBER 1999



DESCHUTES COUNTY
CITY OF BEND

Site and Context

Boundaries:

The area covered by the Lava Ridge Refinement Plan is approximately 700 acres of partially developed land on the Northeast edge of Bend. It is bounded on the north by Cooley Road, to the East by the Urban Growth Boundary, to the South by Empire Boulevard and to the west by the railroad.

Natural Resources:

Swalley Canal runs through the western quarter of the plan area while Pilot Butte Canal runs along the easternmost edge. Low shrubs and juniper trees with occasional prominent rock outcroppings characterize the area. There are views to the west of the Cascade Mountains.

Transportation:

The area is accessed primarily from the Empire Avenue exit from Highway 97 and is approximately 5 miles from the Downtown. Primary north/south traffic is carried through the middle of the plan area on Boyd Acres Road - a twisty two lane road with no on street parking or sidewalks - or on the newer NE 18th Street - an arterial street that runs up the eastern edge of the plan area. Primary east/west traffic is carried on Morning Star Drive that bisects the plan area or Cooley Road to the north. There is a general lack of street connectivity to distribute local or through traffic.

Land Use:

Existing uses are single family residential, some light industrial, and a few civic/religious uses. An elementary school is built in the Northeast corner of the Plan area on approximately 40 acres of land. Adjacent and to the south of the school is 40 acres of land owned by Bend Metro Park and Recreation District that will be developed in the future into a regional park.

Historically the building pattern has been single family houses on large parcels serviced by individual septic systems. More recently, subdivisions have been developing throughout the area, bringing with them sewer lines. Smaller lots (6000 S.F.) on cul-de-sacs have been the typical form of these newer developments. This has forced heavier traffic on the few through streets in the area - namely Morning Star Drive and Boyd Acres Road. In addition, due to access management, the newer developments are backing lots onto some of these streets which in turn promotes fenced off, unfriendly and dangerous streetscapes.

Potential new development is possible on large parcels of undeveloped land (40 acres plus) or in redeveloping and/or subdividing the older single-family parcels.

SITE AND CONTEXT

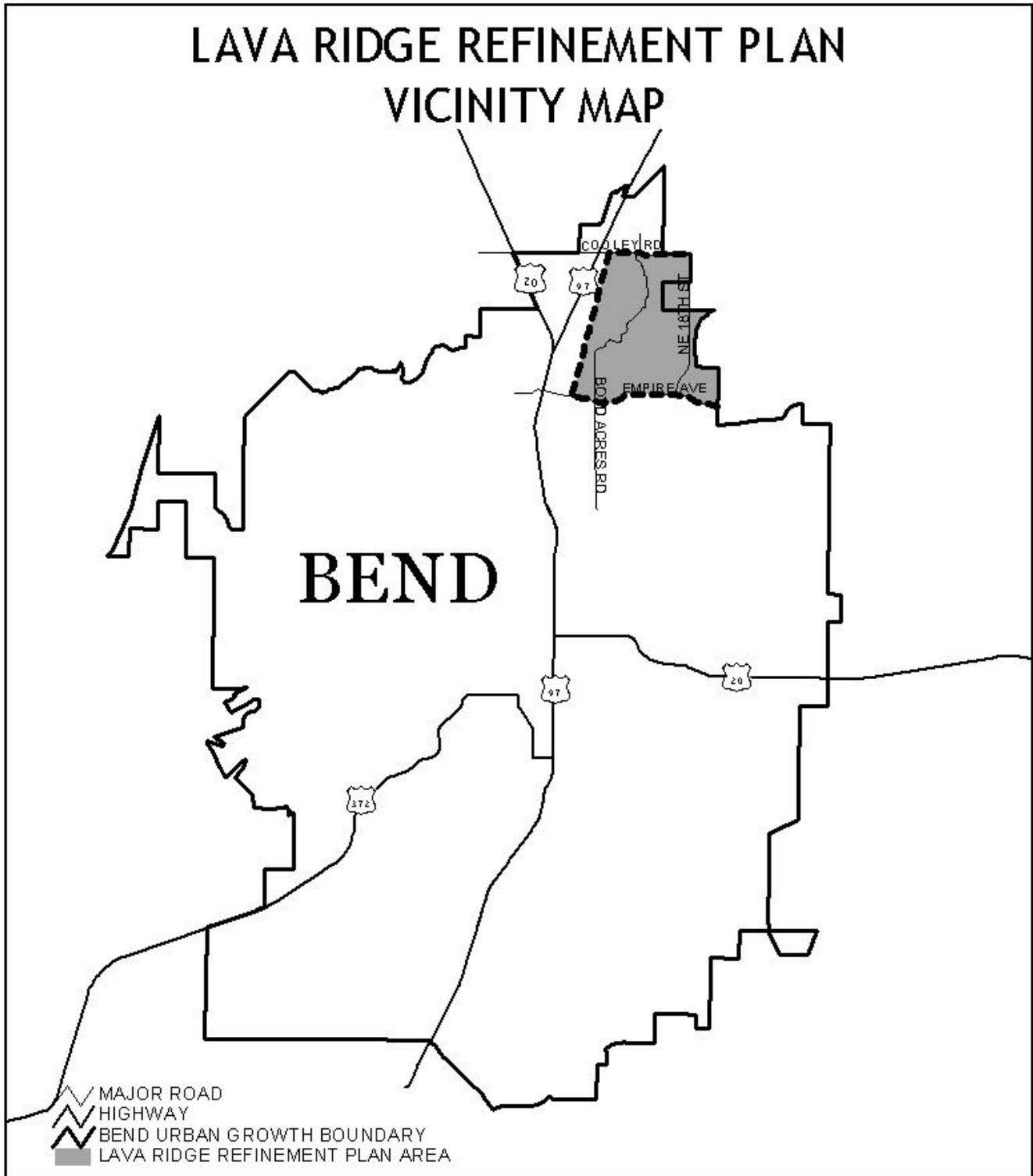


Figure 1

SITE AND CONTEXT

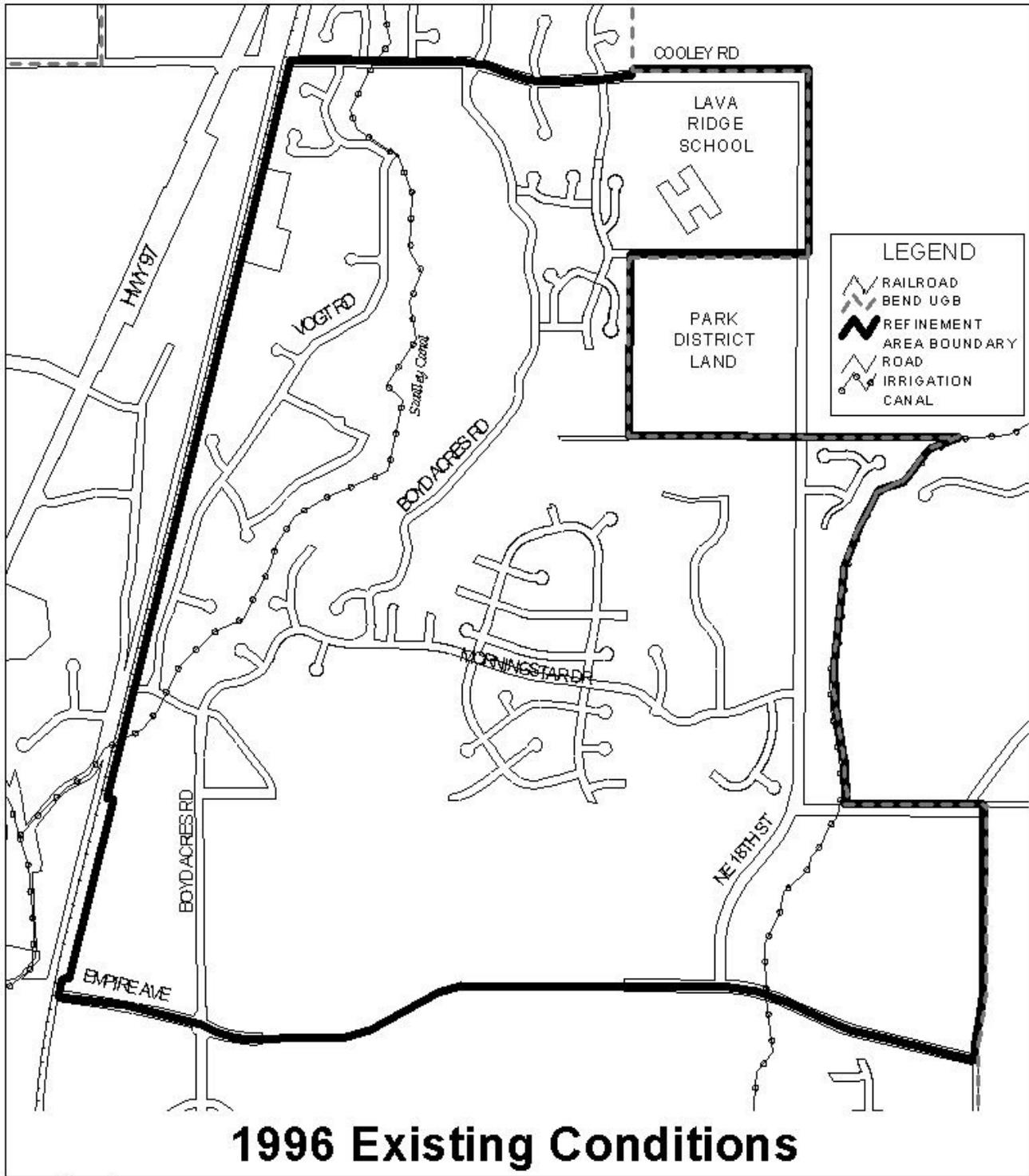


Figure 2

PLAN OBJECTIVES

The objectives of the refinement plan process are:

- *Identify and coordinate street and utility locations.*
- *Involve all of the property owners in the plan area and identified stakeholders in a collaborative process to draft the refinement plan.*
- *Develop a street plan that will allow individual property owners to develop independently and still create an interconnected street system and compatible uses.*
- *Designate neighborhood open space and provide a mechanism for construction and maintenance of designated parks.*
- *Determine density locations and ranges that will allow flexibility for individual property owners to respond to the market and still meet the housing needs identified in the Bend Area General Plan.*
- *Establish design standards for street, sidewalks and building location to create streetscapes that are safe and accessible for pedestrians.*

PLAN OVERVIEW

Goals:

The goal of the refinement plan is to ease the transition to urban density residential zoning in the Northeast area of Bend. The Lava Ridge area was selected because of recent and planned conversion of large suburban parcels to higher urban density development. In addition, there has been extensive controversy over the nature of recent development with the existing residents of the area. The community has expressed frustration with the type of development that is occurring: walled and fenced subdivisions, small lots with no open space, oversized streets, and high traffic speeds on some streets. Similarly, developers in the area have expressed frustration regarding citizen complaints and holdups to their developments. Both groups felt that lack of certainty has been the number one problem. It was agreed that if consensus could be reached on what type of development would be allowed the process would be much smoother.

The large number of undeveloped or underdeveloped properties between 5 and 40 acres are likely to be built up within the next 15 to 20 years if Bend continues to grow at the current rate.

PLAN OVERVIEW

A specific plan is necessary to allow property owners to develop at separate times while still creating a cohesive neighborhood.

Process:

The Refinement Plan process has included two intense public design workshops in the Lava Ridge area. The first workshop educated the participants in the concepts of traditional neighborhood design and developed a conceptual plan for the area. This workshop also achieved some consensus that urban density could be designed to create neighborhoods with a mix of housing types and lot sizes, open space, possible neighborhood commercial or mixed use centers, narrower streets and safeguards to make new development compatible with existing development. A report titled “Town Making Principles” was produced which demonstrates strategies for implementing the conceptual plan developed in the workshop.

A follow-up workshop was conducted to involve the public and stakeholders in resolving some of the issues in the conceptual plan including open space acquisition and management, street standards and density. The result has been this written and graphic Lava Ridge Refinement Plan.

Results:

The plan promotes the development of neighborhoods based on traditional planning principles. A network of connected streets, some narrower than the current standard, will help to reduce cut-through traffic while distributing local traffic more evenly. Neighborhood parks are provided, particularly in higher density areas. Neighborhood commercial at the edge of the neighborhood can reduce daily car trips while keeping the associated commercial traffic away from the residential areas.

LAND USE

The Lava Ridge Refinement Plan alters existing Land Use in the following manner:

- *Provides new General Plan land use designations and zoning.*
- *Limits further subdivision in the designated RL zone west of Swalley Canal and north of Morningstar Drive*
- *Rezones 122 acres of RL land to RS*
- *Creates a Professional Office (PO) zone along the North side of Empire Avenue to buffer the residential areas from the industrial uses to the south of Empire. The PO zone shall be intended primarily for office use. Housing in the PO zone shall be limited to the upper floors of structures, above offices or uses otherwise permitted in the zone.*
- *Provides a band of RM zoning between the new PO zone and the existing RS zones to the north. The purpose is to provide a gradient of density and uses between Empire Boulevard and it's corresponding uses and traffic and the inner residential neighborhoods.*
- *Creates a flex zone on the southern portion of the property north of the Industrial zone north of Empire. While the exact form of the zone will be determined during the platting process, it will be no more than 7 acres in total area. The property may be platted as PO, RM or RS or a combination of these zones. The intent is to provide a buffer between the adjacent industrial zone and the single-family zone to the north.*
- *Provides up to 4 acres of Neighborhood Commercial at the corner of Empire Avenue and 18th Avenue.*
- *Provides neighborhood parks in the Lava Ridge Refinement plan area. The parks are surrounded by streets on at least three sides to provide the greatest amount of public access and safety. The three parks within the Bend Metro Parks and Recreation District (BMPRD) Boundary are required. The required parks shall be developed in accordance with BMPRD standards under the provisions of District SDC ordinance. The other two parks are optional. Because of the varied terrain on the parcel east of the North Unit canal, the exact size and location of park number 1, shown on the Park & Pedestrian Access Ways Diagram (Figure 4), shall be determined with the platting process. The size of park number 1 shall be between two and five acres.*
- *Amends the zoning on the Lava Ridge School site from SR2.5 to Public Facility (PF).*

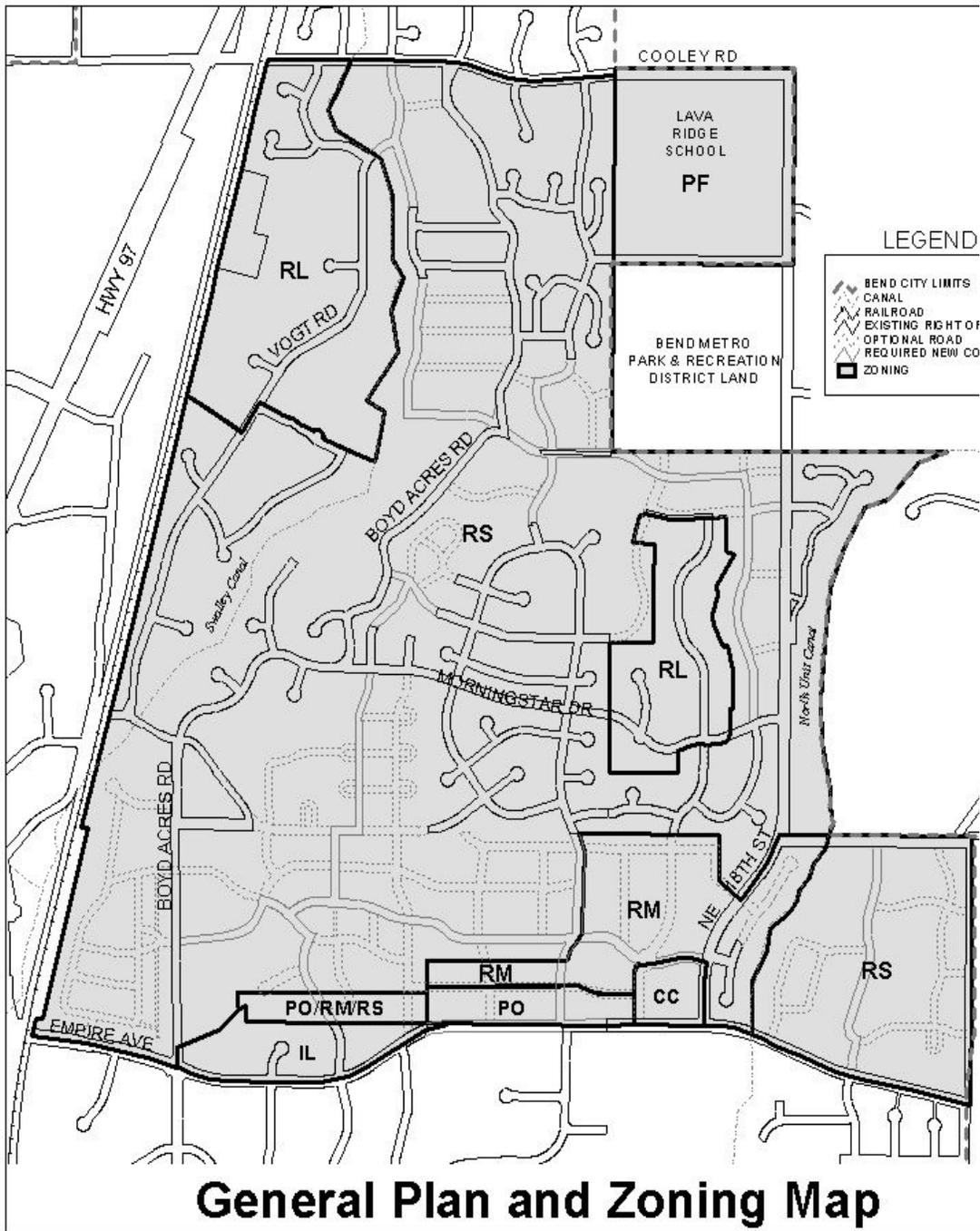


Figure 3

Lava Ridge Refinement Plan

7

ORDINANCE NS-1753
EXHIBIT A

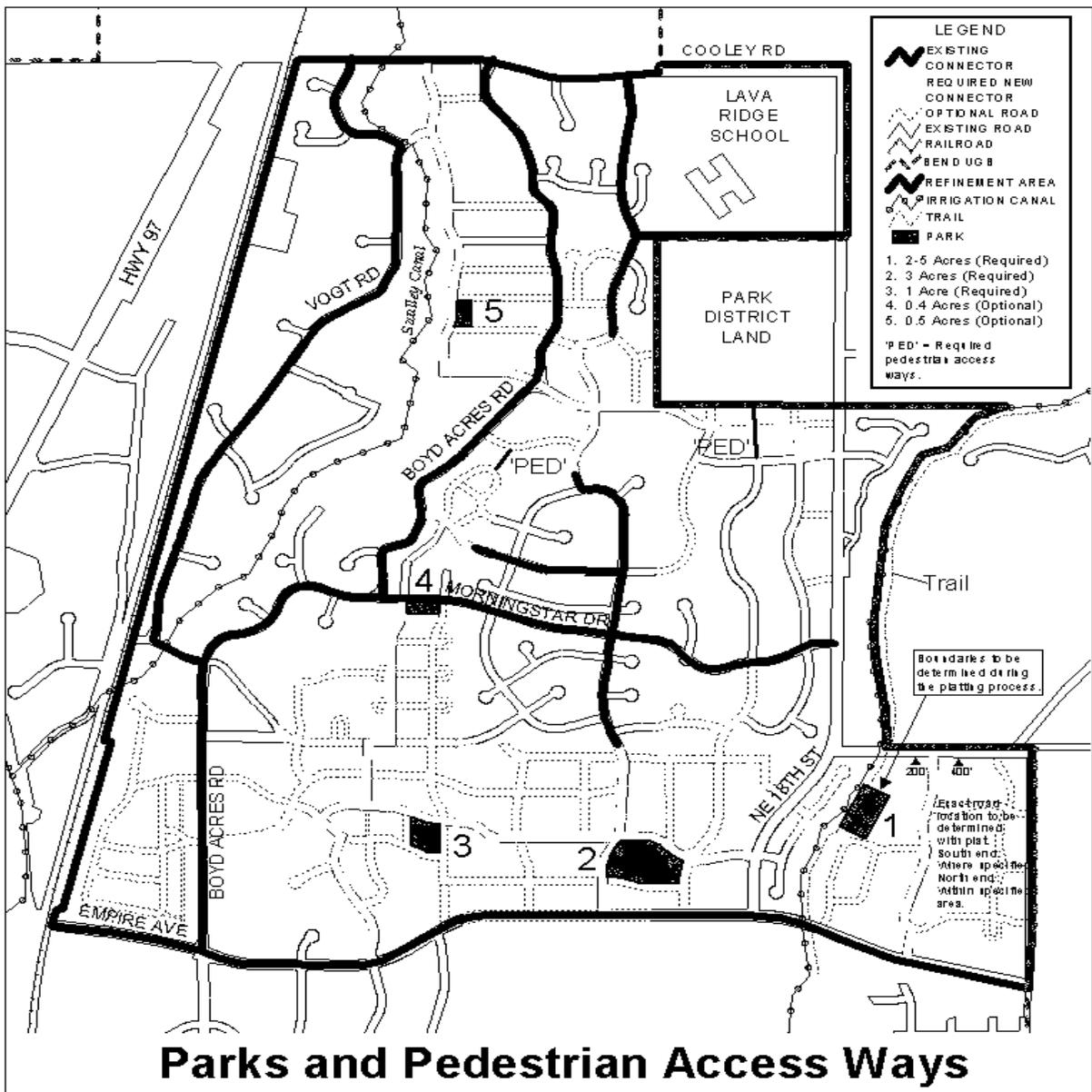


Figure 4

Ordinance No. 1753
 Exhibit A (Continued)

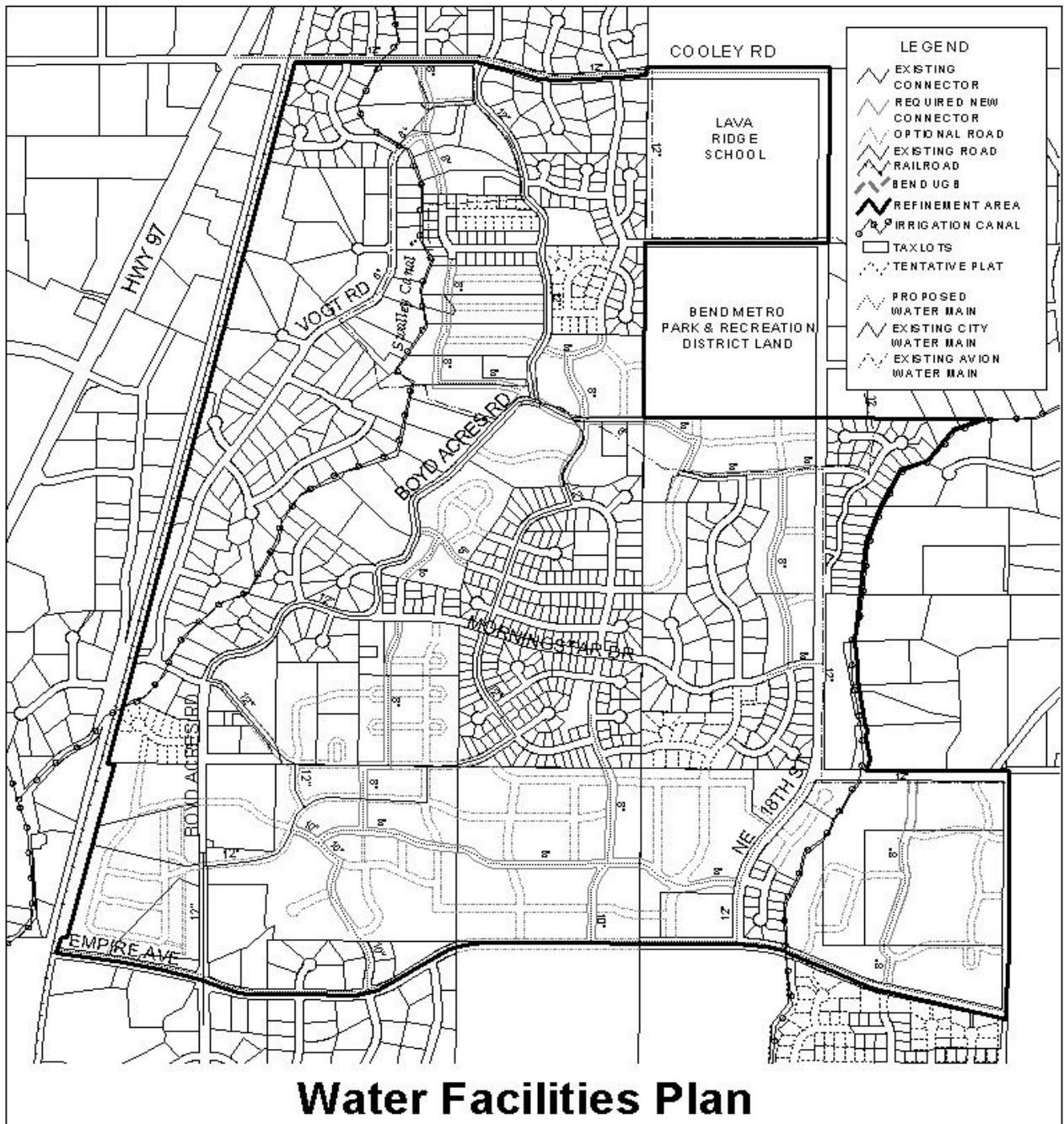


Figure 5

Ordinance No. 1753
Exhibit A (Continued)

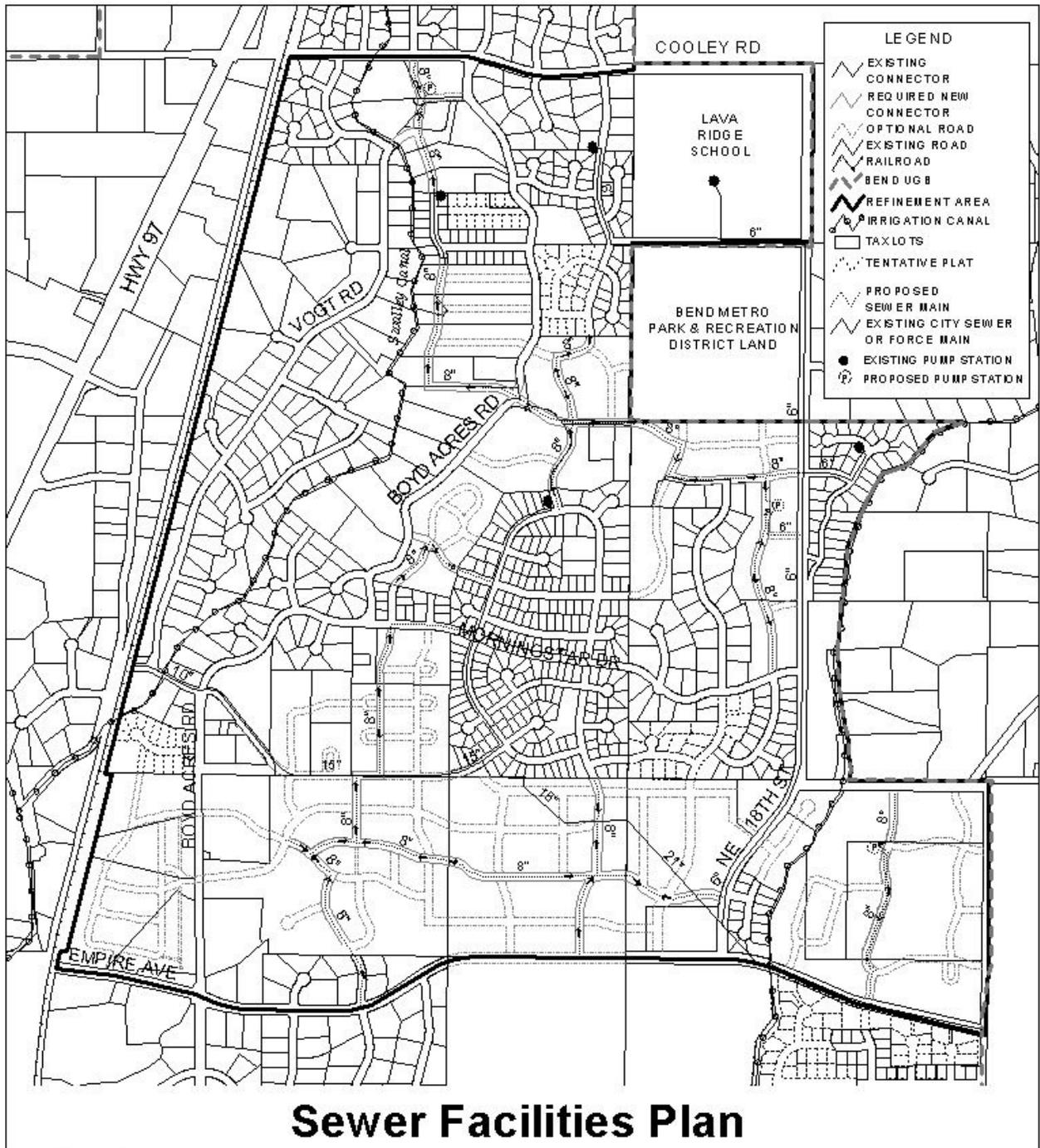


Figure 6

Ordinance No. 1753
 Exhibit A (Continued)

DENSITY

The following policies shall apply to zones within the Lava Ridge Refinement Plan:

- In the RL zone partition shall be limited to one new lot for each existing lot provided it can be served by an on-site septic system.*
- In the RS zone permitted densities are the same as in the underlying RS zone.*
- In the RM zone permitted densities are the same as in the underlying RM zone.*
- The PO zone shall be intended primarily for office use.*
- Housing in the PO zone shall be limited to the upper floors of structures, above offices or uses otherwise permitted in the zone.*

CIRCULATION/TRANSPORTATION

Overview:

Primary north/south traffic is currently carried through the middle of the plan area on Boyd Acres Road. Primary east/west traffic is currently carried on Morning Star Drive. Neither of these streets was designed for the heavier traffic they are experiencing as more development occurs in the area so a main goal of the refinement plan has been to provide other local routes.

The planned Empire Avenue and NE 18th Street, both arterials, will carry through traffic around the residential areas. Local traffic will be distributed on many smaller interconnected local streets. Those shown in black or gray on the Circulation/Transportation Plan in Figure 7, are local connectors. They provide general overall connectivity through the plan area but are indirect enough to discourage cut-through traffic.

These local connectors, except the one east of 18th Street, are required to be built within 50' of where they are shown on the plan. The southern end of the required local connector east of 18th street shall be within 50 feet of its location shown on Figure 4. The northern end shall be located on the section line between points 200 feet and 700 feet of the centerline of the North Unit canal. The street alignment shall be determined at the platting and shall connect the two ends points as directly as possible considering the terrain. The streets shown in dashed lines in Figure 7 are suggested new streets. While the exact location of these streets is up to the developer, adequate street connectivity is guaranteed through maximum block perimeter standards.

CIRCULATION/TRANSPORTATION

Standards:

Street and pedestrian standards shall be consistent with the requirements of the Bend General Plan and the Zoning Ordinance, except as set forth below:

- 1. Special street design standards have been developed for select locations in the refinement plan area. The Circulation/Transportation diagram (see Figure 7) depicts where these standards are applied.*
- 2. Figure 8 depicts the Arterial Standard for Empire Avenue. Left turn access is restricted on Empire Boulevard to the following intersections (indicated with circles on the Circulation/Transportation Plan): Boyd Acres Road, NE 18th Avenue, and the three new required connector streets.*
- 3. Figure 9 depicts the special standards for Boyd Acres Road.*
- 4. Figure 10 depicts the local street standard. Local streets shall include a minimum 60-foot right-of-way (ROW) and a 32-foot-wide paved travel surface (curb to curb). Parking shall be permitted on both sides of local streets. Local streets shall include property-tight 5-foot-wide sidewalks on both sides of the street. The sidewalks shall be separated from the curb by a minimum 8-foot-wide planter strip.*
- 5. Figure 11 depicts another alternative local street standard that provides a center median.*
- 6. Alleys shall include a minimum of 20 feet of right-of-way and 16 feet of paved travel surface (see Figure 12).*
- 7. Required pedestrian access ways and trail (identified in Figure 4) shall be located within a right of way no less than 14 feet wide. Pedestrian access ways shall be a minimum of 10 feet wide and paved with asphalt or concrete (see Figure 13). The trail shall be developed with a surface approved by the City and the Bend Metro Park and Recreation District.*
- 8. Street trees shall be provided along all new local connector streets and arterials. Only street trees from a list maintained by the City Planning Department shall be planted. Along these streets, trees shall be planted 25 to 30 feet on center. Trees shall be a minimum of 2-inch caliper measured 4 feet from ground level.*

SEWER AND WATER PUBLIC FACILITIES

Public water and sewer facilities shown on Figures 5 and 6 shall be constructed to City standards and should be located in identified connector street rights of way.

CIRCULATION/TRANSPORTATION

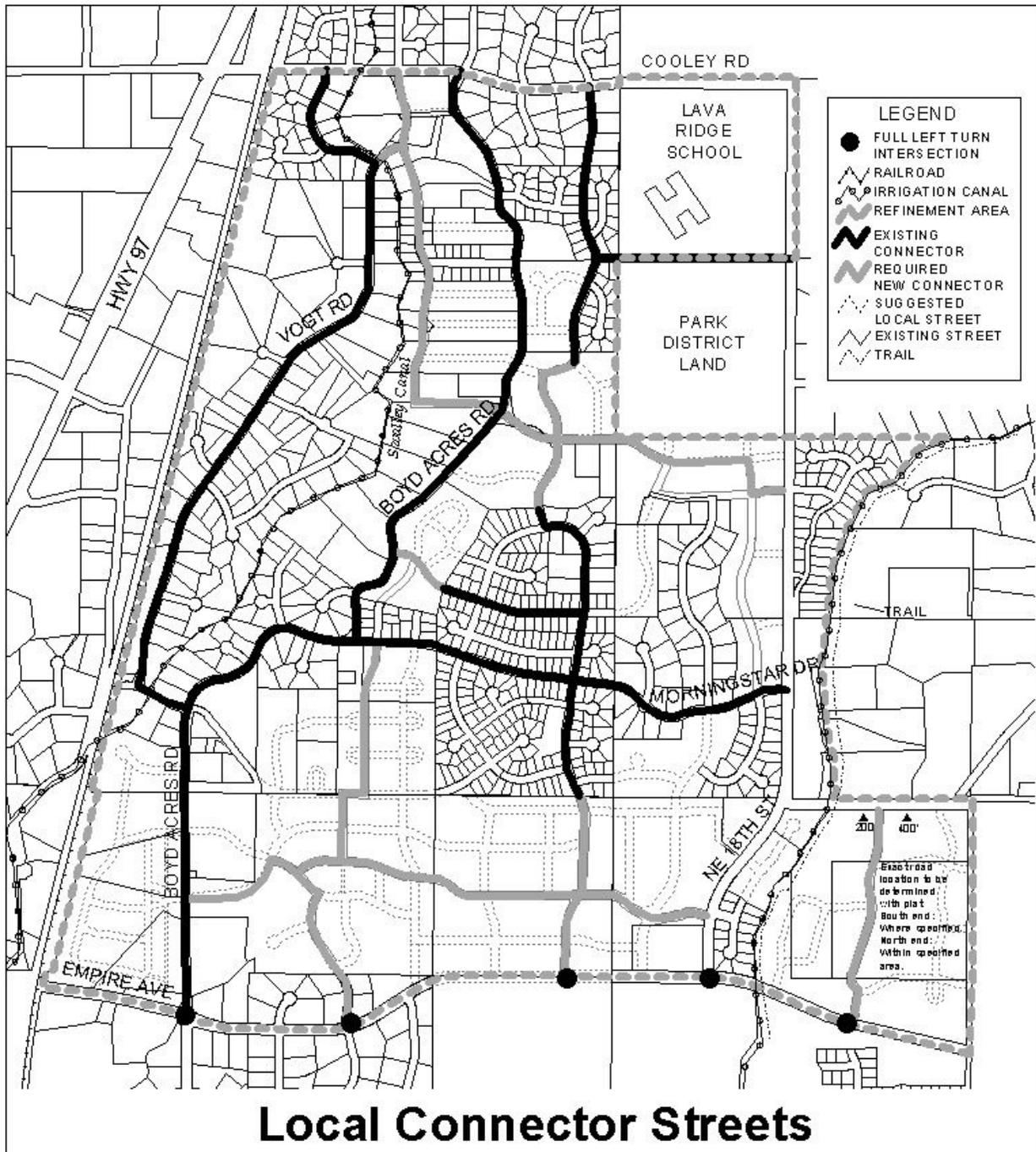


Figure 7

Ordinance No. 1753
Exhibit A (Continued)

STREET SECTIONS

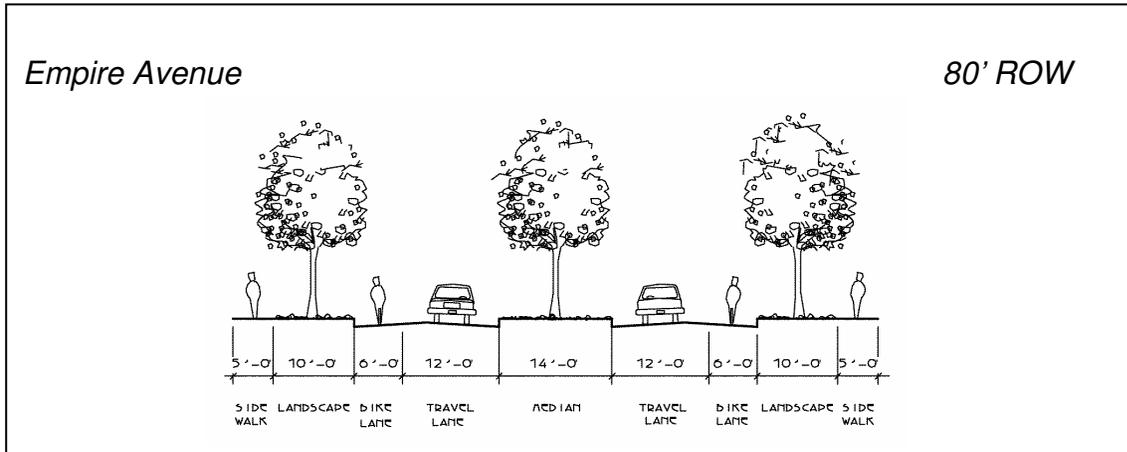


Figure 8

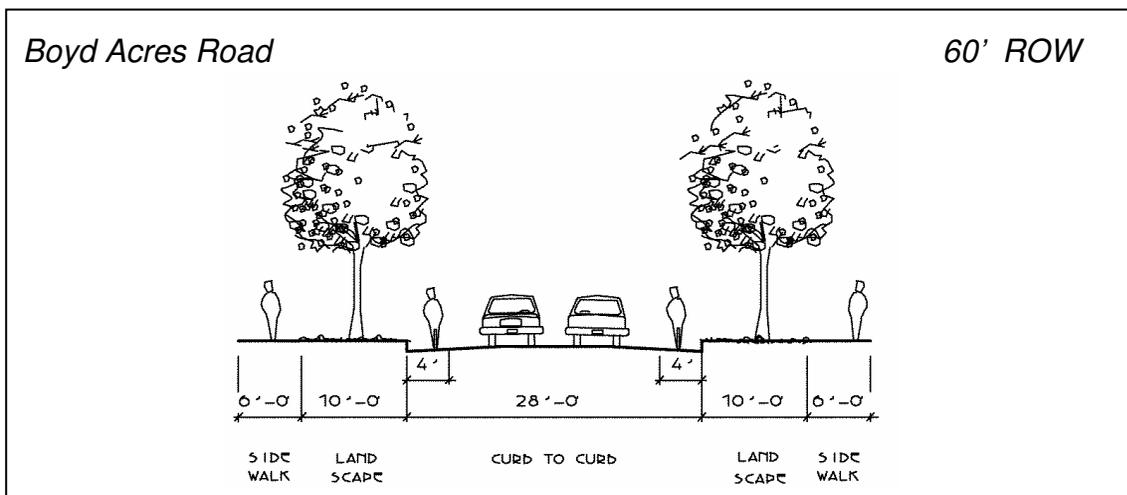


Figure 9

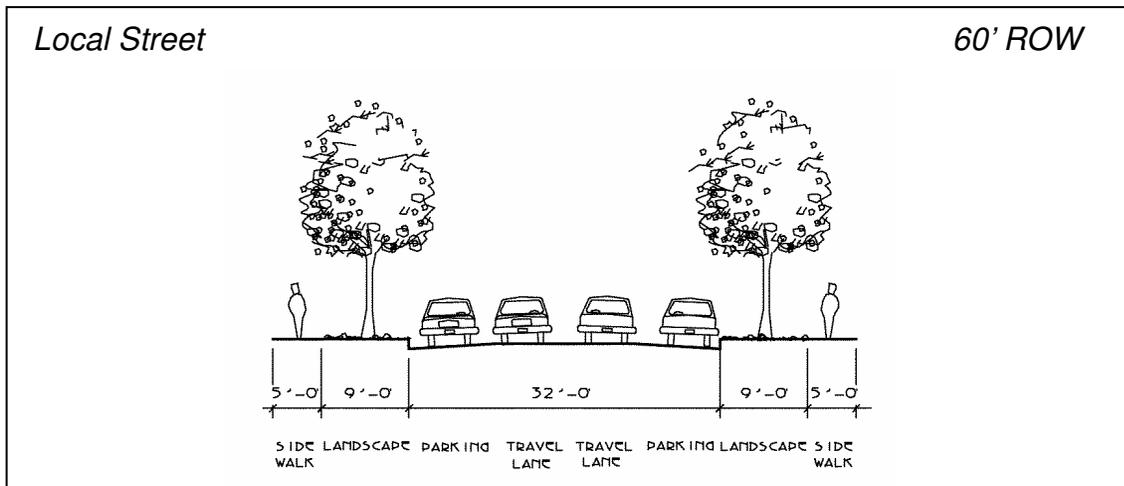


Figure 10

STREET SECTIONS

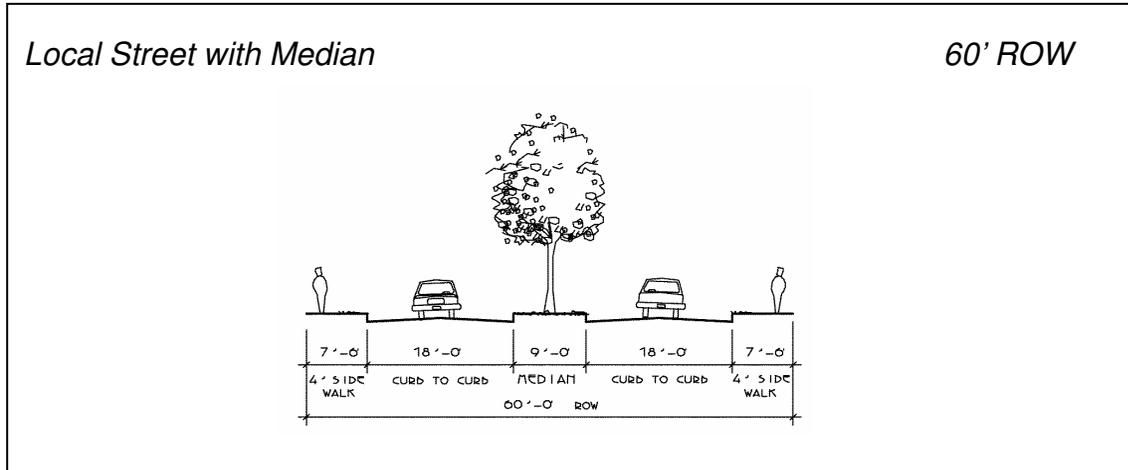


Figure 11

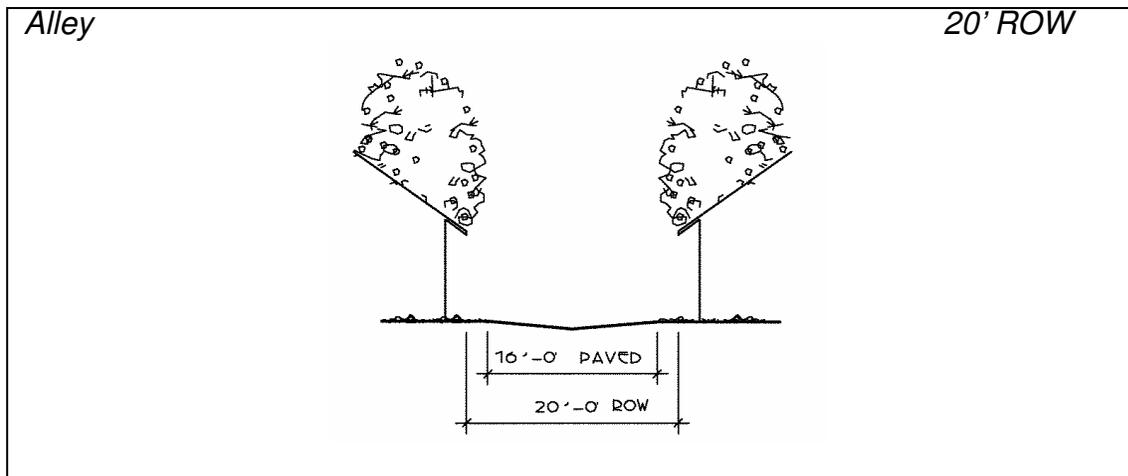


Figure 12

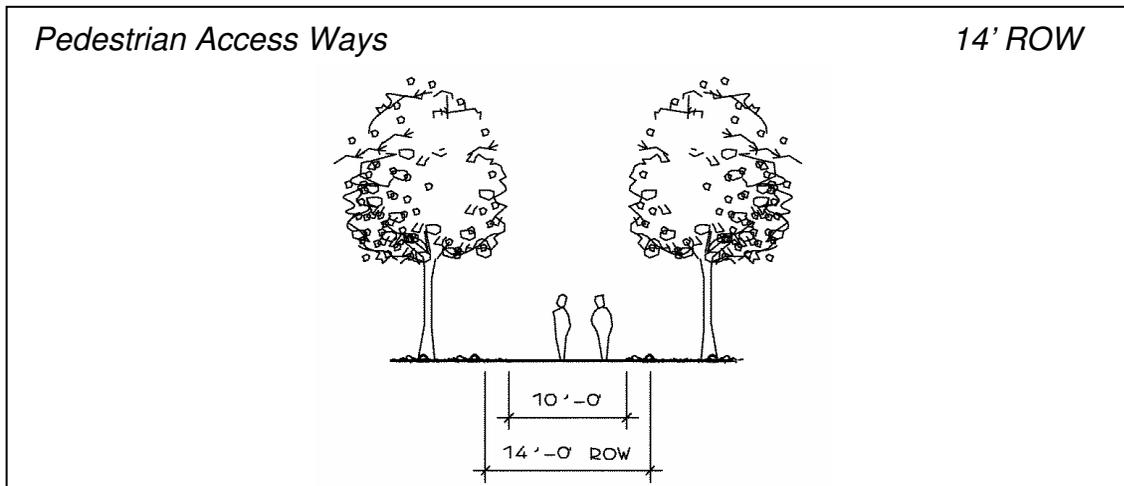


Figure 13

DESIGN AND DEVELOPMENT STANDARDS

Neighborhood Public Parks – Three required public parks shall be provided at the locations depicted on the Parks and Pedestrian Access Ways diagram of the this plan. (Figure 4) The exact location and size of the park east of 18th street (#1 on Park and Pedestrian Access Ways Diagram) shall be determined at the time of plat. The park shall be between 2 and 5 acres in size.

Block Perimeter – In addition to block length standards of the Zoning Ordinance, the perimeter of blocks shall not exceed 1,600 feet. Blocks over 500 feet in length shall provide a pedestrian access way at approximately mid-block.

Office and commercial development shall be subject to the Bend City Code design review standards.

Residential Design Standards - Residential development shall be oriented to a street, with a primary entrance that fronts on the street. Garages shall be set back a minimum of 5 feet behind the front of any residential dwelling. Garage doors shall represent no more than 50% of the building frontage of any single family or duplex structure. The planning director may waive the garage setback standard for single family, duplex or triplex structures when slope at the front of the lot exceeds 12%. Parking shall be behind the building for multifamily developments.

Fences – Fences in front yards and yards that abut local, collector or hammerhead streets shall not exceed 3 feet 6 inches in height. Six-foot-high fences may be provided outside the front yard setback area between the property line and the building and the side lot lines. Fences up to 6 feet tall may be provided along alleys although 5 feet is encouraged for safety. See diagram below.

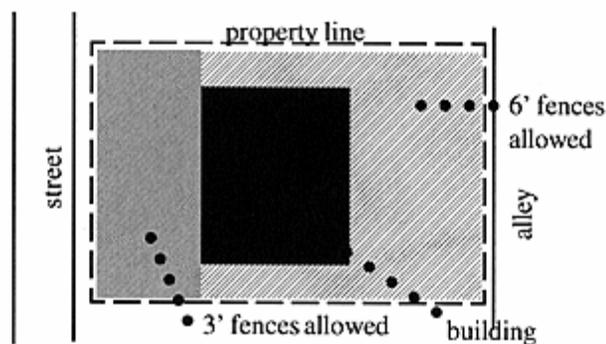


Figure 14