

# **Southeast Connector Neighborhood Area**

## **FUTURE LAND USE PLAN**



**in conjunction with the  
Rapid City Area Metropolitan Planning Organization  
and the  
South Dakota Department of Transportation  
and the  
U.S. Department of Transportation  
Federal Highway Administration**

## **Southeast Connector Neighborhood Area**

### **Future Land Use Plan**

#### Executive Summary

The Future Land Use Plan is an indispensable tool for all sectors of the community. Local government can invest public infrastructure dollars more wisely if the location and magnitude of anticipated growth is identified. Private sector businesses can use the Plan to make more accurate growth projections and better position themselves to meet the needs of the future population. The Plan will provide developers and landowners with a clear idea of the location and type of development desired by the community thus saving time and money in assembling development plans. The Plan will enable individual citizens to be more aware of how the community and their specific neighborhoods will develop, assisting them in making more informed decisions about where to live and work.

The Southeast Connector Neighborhood Area Future Land Use Plan includes land within corporate city limits, the three-mile platting jurisdiction and the Metropolitan Planning Organization planning jurisdiction. The Southeast Connector Neighborhood Area encompasses approximately 34,500 acres and is located in the southeastern portion of the community. The following points summarize the intent of the Southeast Connector Neighborhood Area Future Land Use Plan.

- Residential growth patterns will increase, primarily as single family dwelling units.
- Extension of infrastructure is identified to support the anticipated growth patterns.
- South Dakota Highway 44 and South Dakota Highway 79 are entryway corridors into Rapid City, with close proximity to the Dakota, Minnesota and Eastern Railroad. General commercial and industrial uses have been identified along these corridors to accommodate and encourage business development.
- Additional parks and recreational opportunities are needed in the Neighborhood Area and the Future Land Use Plan has identified generalized areas where those sites would be appropriate.

## TABLE OF CONTENTS

Executive Summary .....	i
Introduction .....	1
Neighborhood Profile	
Physical Characteristics .....	1
Residential Characteristics .....	2
Non-Residential Characteristics .....	3
Existing Land Use Profile .....	3
Growth Profile	
Density .....	9
Year 2035 Residential Growth Projections .....	10
Year 2035 Non-Residential Growth Projections .....	12
Residential Build Out .....	14
Non-Residential Build Out .....	15
Entryway Overlay	
Purpose of the Entryway Overlay .....	15
Overlay Area .....	16
Goals .....	16
Recommendations .....	16
Summary .....	19

# SOUTHEAST CONNECTOR FUTURE LAND USE PLAN

## Introduction

The Southeast Connector Neighborhood Area encompasses approximately 34,500 acres and is located in the southeastern portion of the community. The northern limit of the Neighborhood corridor is South Dakota Highway 44. The western boundary is Cambell Street / South Dakota Highway 79. The eastern boundary is the range line between Range 9 East and Range 10 East, which runs north-south along the east side of Caputa. The southern limit of the study area is the southern boundary of the following sections: Township 1 South, Range 9 East, Sections 13-18, Township 1 South, Range 8 East, Sections 13-16 and a portion of Section 17. The Future Land Use Neighborhood Area Map included within this text identifies the Southeast Connector Neighborhood Area in geographic relation to the other neighborhoods in the Future Land Use Neighborhood Area.

The *Rapid City Area Future Land Use 2008 Plan Overview* provides the background information used in preparing the calculations for the Southeast Connector Neighborhood Area Future Land Use Plan as well as describes the process in developing the Future Land Use Plan. A copy of the *2008 Plan Overview* is available in the Rapid City Growth Management Department.

The Future Land Use Committee developed this Plan through significant public input in the form of public open houses and land owner meetings. The Plan also incorporates portions of the *Pennington County Comprehensive Plan*.

## Neighborhood Profile

### Physical Characteristics

The Southeast Connector Neighborhood Area includes a range of topography extending from approximately 3,600 feet above mean sea level in the southwest corner of the neighborhood area to approximately 2,885 feet on the eastern end of the neighborhood area near Caputa. One major creek, Rapid Creek, passes through the neighborhood area and several major drainage ways are located throughout. The Federal Emergency Management Agency (FEMA) has defined several different flood zones within this neighborhood. Flood Zone A (nondetailed study) has been defined for several tributaries to Rapid Creek and that portion of Rapid Creek downstream of Bradsky Road. Flood Zone AE (detailed study with Base Flood Elevation) and Floodway have been defined for Rapid Creek and some of its tributaries west of Bradsky Road upstream to South Dakota Highway 79/Cambell Street.

The Basin Electric Intertie station is located within the Southeast Connector Neighborhood Study Area. A detailed study was completed in 2007 to evaluate noise and vibration and to make recommendations regarding compatible land use designations.

The Future Land Use Committee utilized the findings in the report to draft land use designations for the area. The study is available in the Rapid City Growth Management Department and is titled *Basin Electric Intertie Noise and Vibration Study and Land Use Assessment*.

**Residential Characteristics**

Between 2000 and 2007, the number of dwelling units in the Southeast Connector Neighborhood Area increased by 29.4 percent. This 29.4 percent increase amounts to a 4.89 percent average annual increase in total dwelling units in the Southeast Connector Neighborhood Area, an increase of approximately 55 dwelling units per year.

Figure 1 below identifies the number of residential units in the Southeast Connector Neighborhood Area. This information was taken from the 2000 U.S. Census and supplemented by approved building permits between 2000 and 2007.

**Figure 1**

***Southeast Connector Neighborhood Area  
2000-2007 Residential Growth***

<b><u>Dwelling Units</u></b>	<b><u>2000 U.S. Census</u></b>	<b><u>2000- 2007 Increase</u></b>	<b><u>2007 Total</u></b>
Single Family	1,123	355	1,478
Multi-Family	6	8	14
Total	1,129	363	1,492
Percent of Total in Future Land Use Neighborhood Area	2.8%	6.2%	3.2%

*Source: Rapid City Growth Management Department*

Group homes are included in a category other than the single family homes and the multi-family units because there are not separate kitchen facilities in the group home units. Group home units are identified as assisted living facilities, dormitories, and jails. At 2007 year end, there were 102 group home units in the Southeast Connector Neighborhood Area.

## **Non-Residential Characteristics**

In 2000, the Southeast Connector Neighborhood Area included 204,170 square feet of retail land uses. During the seven year period between 2000 and 2007, the retail land use gross square foot floor area in the Southeast Connector Neighborhood Area increased by 47,234 square feet.

The office/service land uses in the Southeast Connector Neighborhood Area included the veterinary clinics, repair shops, car washes and office buildings, and had 255,613 gross square foot floor area in 2000, as outlined in the *2008 Plan Overview*. The office/service land uses in the Area totaled 312,750 square feet through 2007 and amounted to 4.76 percent of all total office/service land uses within the Future Land Use Neighborhood Area.

Figure 2 provides a comparison of the non-residential land uses in 2000 and 2007, as well as the Southeast Connector Neighborhood Area's percentage of the total gross square foot floor area in comparison to the Future Land Use Neighborhood Area. Figure 2 also identifies the percentage increases for the four non-residential land use categories.

**Figure 2**

***Southeast Connector Neighborhood Area  
Non-Residential Land Use  
2000 and 2007 Total Gross Square Foot Floor Area***

	2000		2007		2000-2007 Percentage Change
	Gross Sq. Ft. Floor Area	Percent of Total	Gross Sq. Ft. Floor Area	Percent of Total	
Retail Land Uses	204,170	3.03%	251,404	3.01%	23.13%
Office/Service Land Uses	255,613	4.79%	312,750	4.76%	22.35%
Industrial Land Uses	1,448,266	20.76%	1,767,980	20.22%	22.08%
Public Land Uses	305,467	4.80%	469,606	6.25%	53.73%

Source: Rapid City Growth Management Department

## **Existing Land Use Profile**

To identify future land uses, it is first essential to determine the existing land uses within a neighborhood area. There are ten (10) residential and thirteen (13) non-residential categories of uses identified in this Neighborhood. Single family residential, multiple family residential, group homes, and mobile homes are evaluated based on the number of units. Retail, office/service, industrial and public uses are evaluated based on the gross square foot floor area.

Figure 3a below identifies the existing uses according to various land use categories for **platted property**. Figure 3b below identifies the existing uses according to various land use categories for **unplatted property**. Each category, i.e., residential use, commercial use, industrial use, and public use is further subcategorized to provide the basis for anticipated density information. These designations correspond to the future land use designations identified on Figure 4, the Southeast Connector Neighborhood Area Future Land Use Map.

**Figure 3a**

**Southeast Connector Neighborhood Area  
Existing Land Use Compilation for PLATTED Property**

Area Wide  Proposed Land Use	Existing OCCUPIED Platted Land					
	Existing Occupied Platted Parcels	Gross Sq Ft Floor Area	SF Dwell Units	MF Dwell Units	Group Homes	Mobile Homes
<b>Residential Uses</b>						
Low Density Residential	791.02	19,797	503	3	0	236
Low Density Residential w/ PRD	48.65	0	2	0	0	1
Low Density Residential II	3.5	0	0	0	0	0
Mobile Home Residential w/ PRD	29.81	0	3	0	0	92
Medium Density Residential	31.98	8,388	14	24	0	5
Medium Density Residential w/PRD	0	0	0	0	0	0
Planned Residential Development 1 du/ac	29.88	0	3	0	0	0
Planned Residential Development 1 du/3ac	576.93	0	36	0	0	3
Planned Residential Development 1 du/10ac	19.8	0	1	0	0	0
Rural Reserve (1 du/40 ac Maximum)	98.81	0	6	0	0	1
Planned Unit Development (PUD) - Residential	108.4	2,816	114	0	0	0
<b>Commercial Uses</b>						
Neighborhood Commercial	12.61	16,343	2	0	0	0
Neighborhood Commercial w/ PCD	0	0	0	0	0	0
Office Commercial	0	0	0	0	0	0
Office Commercial w/ PCD	0	0	0	0	0	0
Business Park w/ PCD	0	0	0	0	0	0
General Commercial w/ PCD	91.2	389,515	0	0	0	0
Planned Unit Development (PUD) - Commercial						
<b>Industrial Uses</b>						
Light Industrial	0	0	0	0	0	0
Light Industrial w/ PID	237.98	1,018,710	10	0	0	0
Heavy Industrial	90.99	113,712	1	0	0	0
Heavy Industrial w/ PID	231.61	845,429	0	0	102	0
<b>Other Uses</b>						
Public	153.26	8,829	4	0	0	0

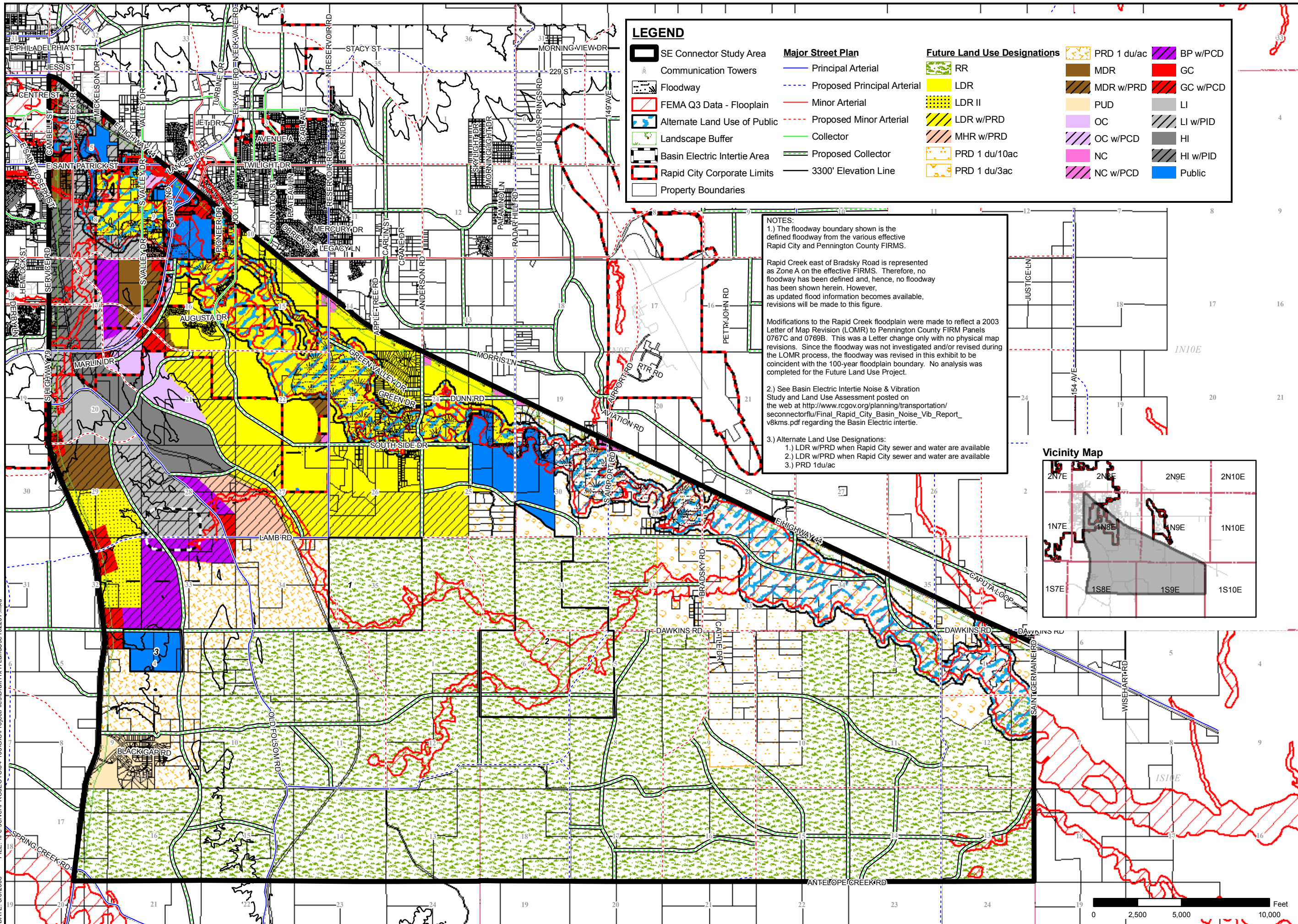
**Figure 3b**

**Southeast Connector Neighborhood Area  
Existing Land Use Compilation for UNPLATTED Property**

Area Wide  Proposed Land Use	Existing OCCUPIED Unplatted Land					
	Existing Occupied Unplatted Parcels	Gross Sq Ft Floor Area	SF Dwell Units	MF Dwell Units	Group Homes	Mobile Homes
<b>Residential Uses</b>						
Low Density Residential	1,008.74	0	24	0	0	3
Low Density Residential w/ PRD	574.7	0	1	0	0	1
Low Density Residential II	208.6	37,714	0	0	0	0
Mobile Home Residential w/ PRD	185.41	0	1	0	0	0
Medium Density Residential	39.32	0	1	0	0	1
Medium Density Residential w/PRD	29.66	0	1	0	0	0
Planned Residential Development 1 du/ac	608.93	25	10	0	0	1
Planned Residential Development 1 du/3ac	1,138.12	0	16	0	0	0
Planned Residential Development 1 du/10ac	544.09	0	18	0	0	4
Rural Reserve (1 du/40 ac Maximum)	4,141.11	0	12	0	0	10
Planned Unit Development (PUD) - Residential	0	0	0	0	0	0
<b>Commercial Uses</b>						
Neighborhood Commercial	7.24	0	0	0	0	0
Neighborhood Commercial w/ PCD	0	0	0	0	0	0
Office Commercial	123.68	0	0	0	0	0
Office Commercial w/ PCD	30.53	4,160	0	0	0	0
Business Park w/ PCD	63.99	0	2	0	0	0
General Commercial w/ PCD	143.82	360	3	0	0	1
Planned Unit Development (PUD) - Commercial	0	0	0	0	0	0
<b>Industrial Uses</b>						
Light Industrial	71.57	34,460	0	0	0	0
Light Industrial w/ PID	277.13	28,718	4	0	0	2
Heavy Industrial	110.26	21,984	0	0	0	0
Heavy Industrial w/ PID	0	0	0	0	0	0
<b>Other Uses</b>						
Public	121.1	210,469	1	0	0	0



DATE: 8/6/2008 FILE: \\fe-server\PROJECTS\04-103\GIS\ProjectFiles\Draft11\17\_LandUse\_102207.mxd



**LEGEND**

	SE Connector Study Area		Principal Arterial		RR		BP w/PCD
	Communication Towers		Proposed Principal Arterial		LDR		GC
	Floodway		Minor Arterial		LDR II		GC w/PCD
	FEMA Q3 Data - Floodplain		Proposed Minor Arterial		LDR w/PRD		LI
	Alternate Land Use of Public		Collector		MHR w/PRD		LI w/PID
	Landscape Buffer		Proposed Collector		PRD 1 du/10ac		HI
	Basin Electric Intertie Area		3300' Elevation Line		PRD 1 du/3ac		NC w/PCD
	Rapid City Corporate Limits						Public
	Property Boundaries						

**NOTES:**

1.) The floodway boundary shown is the defined floodway from the various effective Rapid City and Pennington County FIRMS.

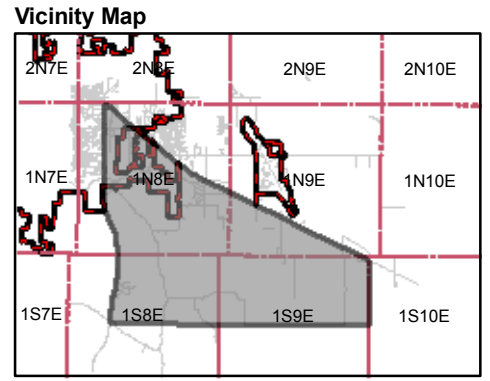
Rapid Creek east of Bradsky Road is represented as Zone A on the effective FIRMS. Therefore, no floodway has been defined and, hence, no floodway has been shown herein. However, as updated flood information becomes available, revisions will be made to this figure.

Modifications to the Rapid Creek floodplain were made to reflect a 2003 Letter of Map Revision (LOMR) to Pennington County FIRM Panels 0767C and 0769B. This was a Letter change only with no physical map revisions. Since the floodway was not investigated and/or revised during the LOMR process, the floodway was revised in this exhibit to be coincident with the 100-year floodplain boundary. No analysis was completed for the Future Land Use Project.

2.) See Basin Electric Intertie Noise & Vibration Study and Land Use Assessment posted on the web at [http://www.rcgov.org/planning/transportation/seconnector/fu/Final\\_Rapid\\_City\\_Basin\\_Noise\\_Vib\\_Report\\_v8kms.pdf](http://www.rcgov.org/planning/transportation/seconnector/fu/Final_Rapid_City_Basin_Noise_Vib_Report_v8kms.pdf) regarding the Basin Electric intertie.

3.) Alternate Land Use Designations:

- 1.) LDR w/PRD when Rapid City sewer and water are available
- 2.) LDR w/PRD when Rapid City sewer and water are available
- 3.) PRD 1du/ac



**SE CONNECTOR FUTURE LAND USE PLAN**  
RAPID CITY, SD

Prepared For: **Ferber Engineering, Inc.**  
  
 Civil Engineering • Water Resources • Transportation • Land Surveying  
 729 East Watertown St, Rapid City, SD 57701 • Phone: (605) 343-3311

Sheet Title: **FIGURE 4. SE CONNECTOR FUTURE LAND USE PLAN**

Sheet: **6**

## Growth Profile

The Future Land Use Study Committee has identified twenty three categories within this Plan for planning purposes, which include low density residential, low density residential II, mobile home residential, medium density residential, planned residential developments, planned unit developments, neighborhood commercial, general commercial, office commercial, business park, light industrial, heavy industrial, public, and rural reserve. These categories provide the basis of the residential, commercial, and public uses described above. *It is essential to note that the commercial and industrial categories identified in Figures 3a and 3b vary from the types of land use.* For example, the General Commercial category allows all four land uses (retail, office/service, industrial, and public).

Low density residential designations include only single family homes, typically with only one family per unit. Land areas designated for current and future residential use should be located close to City services such as fire protection, schools, and parks. Low density residential designations should have some type of buffer from commercial and/or industrial land use activities. This land designation should also have access to an adequate local road system.

Medium density residential designations include all town homes, duplexes condominiums, and apartment complexes. Land areas designated for current and future multiple residential uses should also be located close to City services and near collector or arterial streets to address neighborhood traffic safety concerns and provide a buffer between non-residential uses and single family residential uses.

Planned developments provide flexibility in land development to encourage imaginative urban design. Planned developments allow a mix of land uses that are compatible and well integrated. Planned developments provide the opportunity for an adequate review procedure to promote the proper development of those areas that may be environmentally sensitive because of steep slopes and/or unusual topography. A planned development also promotes compatibility with adjacent land use and available public facilities in terms of such factors as intensity of use, density and traffic circulation.

There are three planned residential development designations within the Southeast Connector Neighborhood Area, each with a different density specification. Each planned development was identified to specifically address issues relative to the property. These three planned residential developments are identified in Figures 3a and 3b as:

- 1) Planned Residential Development 1 incorporates an anticipated density of 1 dwelling unit per acre;
- 2) Planned Residential Development 2 includes an anticipated density of 1 dwelling unit per 3 acres;
- 3) Planned Residential Development 3 includes an anticipated density of 1 dwelling unit per 10 acres.

Each area's density designation addresses the physical constraints of the property including steep slopes, unusual topography, access issues, water pressure concerns, land use mix and adjacent land use compatibility, and encourages unique development potential.

There are four planned commercial development designations within the Southeast Connector Neighborhood Area. These designations also provide flexibility in addressing slope stability, site entrances, traffic safety concerns, access issues, and commercial development diversity.

Infrastructure. The Rapid City Area Major Street Plan identifies several north/south and east/west arterial and collector streets. These roadways will enhance the existing road network and provide road connections, which will adequately move traffic to the major roadways. It is anticipated that utility infrastructure, including water and sanitary sewer lines, will be extended along these roadways to provide services for existing and proposed subdivisions.

School Sites. The only existing school site that lies within the Southeast Connector Neighborhood Area is Western Dakota Technical Institute.

Parks. The Southeast Connector Neighborhood Area includes two recreational facilities. The first facility is the Star of the West Sports Complex housing seven softball fields and sixteen soccer fields. The Rapid City Elks Lodge Golf Course is an eighteen hole golf course located on approximately 131 acres. The City of Rapid City's 2007 Parks and Recreation Plan provides an inventory of existing park and recreation facilities and identifies the minimum park standards for new development. The Park and Recreation Plan indicated that the Southeast Connector Neighborhood Area is in need of neighborhood parks, approximately 1-2 acres in size.

Public Facilities. Currently, there is only a small portion of the Southeast Connector Neighborhood Area that is served by public utilities. The Rapid Valley Fire Department fire station is located along South Dakota Highway 44. Additionally, the City of Rapid City's Water Reclamation Facility is located at the terminus of South Side Drive.

Truck and Rail Traffic. Truck traffic is expected to remain on South Dakota Highway 44, South Dakota Highway 79 and Elk Vale Road. The Committee recognizes the additional truck traffic that has been generated along these corridors with the completion of the Heartland Expressway. The Heartland Expressway connects Interstate 90 to South Dakota Highway 79 south to Denver. With anticipated future increases in airline cargo, the Rapid City Regional Airport is also expected to contribute to increased truck traffic along South Dakota Highway 44. Plans for a rail-truck transload facility east of Box Elder could also increase the amount of truck traffic seen in these corridors. At some point in the future, a direct connection to Interstate 90 at Exit 67 is anticipated. Because all of the above mentioned transportation corridors are gateways into Rapid City, the Committee has designated an additional 500 foot landscaping buffer along the corridors.

The Dakota, Minnesota and Eastern railroad also runs through the Southeast Connector Neighborhood Area within close proximity to South Dakota Highway 79 in the northwestern portion of the study area. Access to rail line and truck routes was a significant factor in identifying parcels with potential industrial uses.

Safety. Pedestrian, bicyclist, and children's safety are a key concern of the Future Land Use Study Committee. The Committee's desire with the development of this Plan is to locate high traffic generating businesses out of the residential areas and along collector streets and arterial streets. Keeping the truck traffic off local roads also addresses many neighborhood safety concerns.

Capacity. The Future Land Use Study Committee is also cognizant of neighborhood concerns regarding the capacity of the road system and the perception that many of the existing roads already carry more traffic than the roads can handle. The Committee has addressed these concerns by identifying additional collector and arterial streets to handle the traffic flows and proposing those land uses that generate more traffic along those collector and arterial routes as described earlier.

### **Density**

To arrive at the anticipated development density of the Southeast Connector Neighborhood Area, the Committee compared the existing density of the various uses to the maximum density allowed by the Rapid City Municipal Zoning Code. The Committee also considered gross density in surrounding and adjacent neighborhood areas for additional comparison. Figure 5 below provides the options used in determining the anticipated development densities. The anticipated density value for dwelling units or square footage per acre is used as a multiplier to determine the total number of dwelling units or total square footage for the undeveloped property within the Southeast Connector Neighborhood Area.

The anticipated densities under each type of land use are influenced by the topography, the cost effectiveness in providing municipal water and sewer, and compatibility with surrounding development. A variety of residential land use classifications are used to accommodate housing demand, provide housing choices, and protect existing residential neighborhoods. Additionally, several non-residential uses were also identified to provide development flexibility in addressing the area's commercial and industrial growth needs.

**Figure 5**

***Southeast Connector Neighborhood Area  
Land Use Density Comparisons***

<b>Residential Uses</b>	<b>Option A Existing Density</b>	<b>Option B Maximum Density</b>	<b>Option C Anticipated Density</b>
Low Density Residential	0.13	6.7 du/ac	2.4 du/ac
Low Density Residential II	0.00	6.7 du/ac	2.4 du/ac
Low Density Residential w/ PRD	0.00	6.7 du/ac	2.4 du/ac
Medium Density Residential	0.10	25 du/ac	15 du/ac
Medium Density Residential w/ PRD	0.00	25 du/ac	15 du/ac
Mobile Home Residential w/ PRD	0.35	6.7 du/ac	2.4 du/ac
Planned Residential Development 1du/10ac	0.02	1 du/10ac	1 du/10ac
Planned Residential Development 1du/3ac	0.00	1 du/3ac	1 du/3ac
Planned Residential Development 1du/ac	0.01	1 du/ac	1 du/ac
Rural Reserve	0.00	1 du/40ac	1 du/40ac
Planned Unit Development	0.40	.60 du/ac	.60 du/ac
<b>Commercial Uses</b>			
Business Park w/PCD	0	7,000 sf/ac	6,300 sf/ac
General Commercial w/PCD	972.31	13,613 sf/ac	7,500 sf/ac
Neighborhood Commercial	404.57	5,445 sf/ac	4,000 sf/ac
Neighborhood Commercial w/PCD	0	5,445 sf/ac	4,000 sf/ac
Office Commercial	0	6,353 sf/ac	3,700 sf/ac
Office Commercial w/ PCD	34.15	6,353 sf/ac	3,700 sf/ac
Planned Unit Development	0	5445 sf/ac	2600 sf/ac
<b>Industrial Uses</b>			
Light Industrial	159.95	32,670 sf/ac	5,600 sf/ac
Light Industrial w/ PID	976.38	32,670 sf/ac	5,600 sf/ac
Heavy Industrial	315.73	34,848 sf/ac	3,900 sf/ac
Heavy Industrial w/ PID	2,548.11	34,848 sf/ac	3,900 sf/ac
<b>Other Uses</b>			
Public	319.09	21,780 sf/ac	9,000 sf/ac

Source: Rapid City Growth Management Department

**Year 2035 Residential Growth Projections**

The year 2035 projections indicate how much of the total build out will be achieved in twenty-seven years. The projections provide the basis for planning many public services, including sewer and water, storm drainage, and road networks. The Future Land Use Study Committee determined the Future Land Use Study Area Year 2035 population to be 159,000 based on numerous methodologies. This population projection was then allocated over all of the neighborhood areas based on the

assumption that residential growth will continue in a pattern similar to the 2000-2007 residential growth. The individual neighborhood area growth projections were determined by dividing the 159,000 population estimate by 2.51 which is the average number of persons per household within the Future Land Use Study Area. This calculation provides the total number of dwelling units in the Year 2035, or 4,055 total dwelling units in the Southeast Connector Neighborhood Area. The total number of dwelling units was then allocated to the type of dwelling unit according to the historical patterns within each neighborhood area, i.e., single family units or multi-family units.

During the period from 2000-2007, 6.19 percent of residential building permits for the entire Future Land Use Neighborhood Area occurred in the Southeast Connector Neighborhood Area. As shown in Figure 1 above, the Southeast Connector Neighborhood Area had 1,492 dwelling units in 2007, with 99.1 percent single family units and 0.9 percent multi-family units.

In the Year 2035, the Committee anticipates an increase of 2,563 new dwelling units in the Southeast Connector Neighborhood Area, 2,507 which will be new single family units and 56 will be multi-family dwelling units. The total dwelling units anticipated in the Southeast Connector Neighborhood Area is expected to reach 4,055 by the Year 2035. Figure 6 identifies the breakdown of dwelling unit increases for the years 2008 to 2035 and a total dwelling unit projection by dwelling unit type for the year 2035.

**Figure 6**

***Future Land Use Neighborhood Area  
Year 2035 Dwelling Unit Projections***

<b>Dwelling Unit Type</b>	<b>2008-2035 Increase</b>	<b>Total Year 2035*</b>
Single Family	2,507	3,985
Multi-Family	56	70
<b>Total</b>	<b>2,563</b>	<b>4,055</b>
Percent of Total in Future Future Land Use Neighborhood Area	15%	7.2%

*\*2035 dwelling unit values obtained from Rapid City Area Future Land Use 2008 Plan Overview.*

The Committee anticipates new single family residential development extending east/southeast of Elk Vale Road to approximately the Radar Hill Road area. Three (3) planned residential developments of varying degrees of density have been anticipated within the Neighborhood:

- 1) One area of Planned Residential Development 1 dwelling unit per acre (PRD 1 du/ac) is anticipated adjacent to and north of The Ranch at Black Gap,

- 2) An area of Planned Residential Development 1 dwelling unit per 3 acres (PRD 1 du/3ac) is anticipated east of Radar Hill Road and generally along SD Highway 44 to the eastern extent of the study area, and
- 3) Planned Residential Development with a density of 1 dwelling unit per 10 acres (PRD 1 du/10ac) is anticipated south of Rapid Creek and east of Bradsky Road.

In addition, areas of higher density residential, commercial and industrial uses have been identified along South Dakota Highway 79 and the Dakota, Minnesota & Eastern Railroad because of their proximity to existing utilities and transportation infrastructure.

Since development of areas in the southern two-thirds of the study area is limited by the availability of City utilities and transportation infrastructure, the Committee anticipates that a Rural Reserve designation is the most appropriate designation for the foreseeable future. This designation allows a maximum development density of one dwelling unit per 40 acres, which is equivalent to the Pennington County General Agriculture designation. By using the Rural Reserve designation, development will remain limited, but during future updates of this Plan, it is likely that the Rural Reserve designation will be modified to reflect a greater allowable density. However, it is unlikely that higher densities will be allowed until public sanitary sewer and water facilities are extended.

Some multi-family developments are identified near non-residential areas to provide a buffer between the non-residential developments adjacent to collector and arterial streets and the single family residential developments.

**Year 2035 Non-Residential Growth Projections**

The Southeast Connector Neighborhood Area non-residential gross square foot floor area is anticipated to increase within the next twenty-seven years. Figure 7 below identifies the projected gross square foot floor area by the four land use categories.

**Figure 7**

***Southeast Connector Neighborhood Area  
Year 2035 Non-Residential Projected Increases in  
Gross Square Foot Floor Area***

<u>Land Use Category</u>	<u>Gross Square Foot Floor Area</u>	<u>Percent of Total Increase</u>
Retail Use	329,981	3.23%
Office/Service Use	580,869	5.59%
Industrial	765,404	21.11%
Public	52,272	6.14%

*\*All values presented were taken from the Rapid City Area Future Land Use 2008 Plan Overview.*

The rate of growth for commercial and industrial land use is based upon the 2008 Plan Overview square foot percentage as compared to the total gross square foot floor area for the entire Future Land Use Neighborhood Area.

Growth projections for neighborhood area commercial and industrial uses are then extrapolated based upon twenty-seven year projections for the entire Future Land Use Study Area.

Figure 8 identifies the remaining Southeast Connector Neighborhood Area Land Use Compilation totals. This land use compilation provides a summary of all anticipated land uses as identified on the Southeast Connector Neighborhood Area Future Land Use Map.

**Figure 8**

**Southeast Connector Neighborhood Area  
Vacant Land Use Compilation Totals**

Area Wide	Vacant Platted Land			Vacant Unplatted Land		
	Vacant Platted Parcels (ac)	Antic. DU or Gross SF	Projected DU or Gross SF	Vacant Unplatted Parcels (ac)	Antic. DU or Gross SF	Projected DU or Gross SF
<b>Residential Uses</b>						
Low Density Residential	352.19	2.4	845	1551.9	2.4	3,724
Low Density Residential w/ PRD	0	2.4	0	506.59	2.4	1,215
Low Density Residential II	0	2.4	0	152	2.4	364
Mobile Home Residential w/ PRD	34.44	2.4	82	9.11	2.4	21
Medium Density Residential	10.14	15	152	39.14	15	587
Medium Density Residential w/PRD	0	15	0	299.96	15	4,499
Planned Residential Development 1 du/ac	48.74	1	48	978.59	1	978
Planned Residential Development 1 du/3ac	1,136	0.33	374	837.30	0.33	276
Planned Residential Development 1 du/10ac	0	0.1	0	837.15	0.1	83
Rural Reserve (1 du/40 ac Maximum)	254.95	0.025	6	11,956.28	0.025	298
Planned Unit Development (PUD) - Residential	33.64	0.6	20	0.00	0.6	0
<b>Commercial Uses</b>						
Neighborhood Commercial	0	4,000	0	30.28	4,000	121,120
Neighborhood Commercial w/ PCD	0	4,000	0	5.36	4,000	21,440
Office Commercial	0	3,700	0	191.33	3,700	707,921
Office Commercial w/ PCD	0	3,700	0	91.28	3,700	337,736
Business Park w/ PCD	24.19	6,300	152,397	482.21	6,300	3,037,923
General Commercial w/ PCD	24.02	7,500	180,150	116.76	7,500	875,700
Planned Unit Development (PUD) - Commercial	28.37	2,600	73,762	0	2,600	0
<b>Industrial Uses</b>						
Light Industrial	52.83	5,600	295,848	196.87	5,600	1,102,472
Light Industrial w/ PID	143.03	5,600	800,968	429.03	5,600	2,402,568
Heavy Industrial	20.01	3,900	78,039	0	3,900	0
Heavy Industrial w/ PID	94.82	3,900	369,798	4.97	3,900	19,383
<b>Other Uses</b>						
Public	89.78	9,000	808,020	301.5	9,000	2,713,500



**Residential Build-Out**

Build out is when all developable land parcels have reached anticipated density. The Southeast Connector Neighborhood Area build out scenario as proposed under this Plan is based on an analysis of existing patterns of development, physical constraints, access to municipal water and sewer, and existing plans for the area.

Figure 9 below identifies the anticipated total dwelling units at build out categorized by the various proposed residential land use categories within the Southeast Connector Neighborhood Area.

Between 2000 and 2007, the Southeast Connector Neighborhood Area grew by 363 dwelling units. Residential growth in this area is expected to continue because the area is readily accessible by two major transportation corridors.

**Figure 9**

***Southeast Connector Neighborhood Area  
Build Out Projected Dwelling Units at Anticipated Densities***

<b>Proposed Land Use</b>	<b>Gross Neighborhood Acres</b>	<b>Anticipated Density per Acre</b>	<b>Total Dwelling Units</b>	
<b><u>Residential Uses</u></b>				
Low Density Residential	3,896.29	2.4	9,351	DU
Low Density Residential w/ PRD	1,144.55	2.4	2,746	DU
Mobile Home Residential w/ PRD	277.99	2.4	667	DU
Planned Residential Development 1 du/ac	1,707.45	1	1,707	DU
Planned Residential Development 1 du/3ac	3,680.77	0.33	1,214	DU
Planned Residential Development 1 du/10ac	1,016.32	0.1	101	DU
Rural Reserve (1 du/40 ac Maximum)	17,052.62	0.025	426	DU
Planned Unit Development (PUD) - Residential	255.01	0.6	153	DU
<b>Total Single Family Units</b>			<b>16,365</b>	<b>DU</b>
Low Density Residential II	389.10	2.4	933	DU
Medium Density Residential	128.72	15	1930	DU
Medium Density Residential w/PRD	325.76	15	4886	DU
<b>Total Residential Dwelling Units</b>			<b>7,749</b>	<b>DU</b>

Source: Rapid City Growth Management Department

**Non-Residential Build Out**

The Southeast Connector Neighborhood Area gross square foot floor area build out expectations at anticipated densities are identified in Figure 10. The size of the parcels significantly impacts the total amount of acreage available for development.

**Figure 10**

***Southeast Connector Neighborhood Area  
Non-Residential Gross Square Foot Floor Area  
Build Out Projections at Anticipated Densities***

<b>Proposed Land Use</b>	<b>Gross Neighborhood Acres</b>	<b>Anticipated Density per Acres</b>	<b>Gross Sq. Foot Floor Area</b>
<b><u>Commercial Uses</u></b>			
Neighborhood Commercial	62.78	4,000 sf/ac	251,120 sf/ac
Neighborhood Commercial w/ PCD	5.60	4,000 sf/ac	22,400 sf/ac
Office Commercial	225.58	3,700 sf/ac	834,646 sf/ac
Office Commercial w/ PCD	143.13	3,700 sf/ac	595,581 sf/ac
Business Park w/ PCD	574.11	6,300 sf/ac	3,616,893 sf/ac
General Commercial w/ PCD	488.80	7,500 sf/ac	3,666,000 sf/ac
Planned Unit Development (PUD) - Commercial	28.37	2,600 sf/ac	73,762 sf/ac
<b>Total Gross Square Foot Floor Area</b>			<b>9,060,402</b>
<b><u>Industrial Uses</u></b>			
Light Industrial	214.86	5,600 sf/ac	1,203,216 sf/ac
Light Industrial w/ PID	1,150.69	5,600 sf/ac	6,443,864 sf/ac
Heavy Industrial	468.35	3,900 sf/ac	1,826,565 sf/ac
Heavy Industrial w/ PID	388.59	3,900 sf/ac	1,515,501 sf/ac
<b>Total Gross Square Foot Floor Area</b>			<b>10,989,146</b>
<b><u>Other Uses</u></b>			
Public	879.11	9,000 sf/ac	7,911,990 sf/ac
<b>Total Gross Square Foot Floor Area</b>			<b>7,911,990</b>

Source: Rapid City Growth Management Department

**Entryway Overlay**

**Purpose of the Entryway Overlay**

South Dakota Highway 44 is a major state highway that links the Rapid City Regional Airport to Rapid City and on to the Black Hills. It is an entryway for travelers entering the community from the east as well as a Gateway for visitors traveling from Rapid City Regional Airport visiting Mount Rushmore and the Black Hills National Forest. South Dakota Highway 79 is another major state highway into Rapid City from the south /

southeast. The purpose of this element of the Neighborhood Plan is to ensure that a high level of visual quality is maintained along both entryways as the adjacent land develops.

### **Overlay Area**

This Overlay Area applies to all property located within 500 feet of South Dakota Highway 44 right-of-way (including dedicated right-of-way, land acquired in fee simple for highway purposes and Highway, H lots or the state-owned railroad right-of-way) beginning approximately 1,000 feet east of the Rapid City Regional Airport entranceway along South Dakota Highway 44 extending east to South Dakota Highway 79, and beginning at the southern study area boundary where Spring Creek and South Dakota Highway 79 intersect extending north to South Dakota Highway 44.

### **Goals**

The following goals are established for the Entryway Overlay Area:

- 1) Create an attractive and inviting environment along the corridor.
- 2) Incorporate consistent and appropriate design standards that unify the corridor and incorporate regional forms and materials in design elements.
- 3) Incorporate a high level of craftsmanship, high quality materials and superior design in all corridor improvements.
- 4) Preserve the existing vistas of prairie land to the east and the Black Hills to the west by maintaining openness along portions of the corridor by clustering structures and setting them back from the roadway.
- 5) Protect the night skies through implementation of dark skies requirements.
- 6) Develop an environment that is friendly and safe for pedestrians and bicyclists.

### **Recommendations**

- 1) Within this Entryway Overlay area, the following design elements shall be incorporated into the design of all projects occurring within the Entryway Overlay Area as part of the Planned Development review:
  - a) Sixty foot landscape zones from the railroad right-of-way south of South Dakota Highway 44 right-of-way and east of the highway right-of-way east of South Dakota Highway 79. No parking or loading areas or structures shall be allowed in these landscape zones; however, ground signs, as well as pedestrian and bicycle paths may be allowed in the landscape zone when integrated into the landscaping.

- b) An informally arranged mix of deciduous and coniferous trees and shrubs, with naturalized grasses and wildflowers will be incorporated into the landscape zones.
- c) Berms and mass plantings shall be incorporated into the landscape zones to screen off-street parking areas from the South Dakota Highway 44 and South Dakota Highway 79 roadway.
- d) All structures shall have single story construction to maximize and protect the view sheds to south of South Dakota Highway 44 roadway and east of South Dakota Highway 79 roadway.
- e) Buildings shall be clustered when possible to provide strong spatial relationships between buildings and maintain view windows to both south of South Dakota Highway 44 roadway and east of South Dakota Highway 79 roadway.
- f) Building setbacks and orientations shall be varied to avoid a walled corridor effect. Building entries should be oriented so as to be visible from South Dakota Highway 44 and South Dakota Highway 79 wherever possible.
- g) Structural materials shall be earth tone with primarily subtle, neutral colors reflective of the prairie environment.
- h) HVAC, trash receptacles, loading docks and other service facilities shall be screened from view from all adjacent properties, including rooftop facilities.
- i) Loading, storage and service areas shall be screened from adjacent residential uses and from view from the South Dakota Highway 44 and South Dakota Highway 79 roadways. Building design and layout should be integrated into the screening of these areas.
- j) Chain link fences with slats shall not be utilized within the Entryway Overlay Area.
- k) Materials for fences, retaining walls and screening shall be warm-toned, natural materials, or materials that are sympathetic to natural materials.
- l) Any fences shall be designed so as to have the finished side viewed from the outside.

- m) Horizontal profile signage made of subtle, earth toned materials incorporated into the landscaping areas shall be provided. All signs shall be less than 12 feet in height and no pole signs will be allowed.
- n) Plant materials should be incorporated around the base of the ground mounted signs to aide in integrating the signs into the natural environment. Plant material around floodlight fixtures shall be carefully located to visually screen the fixtures.
- o) Off street parking areas shall incorporate significant landscaping islands to avoid the appearance of large expansive parking areas. Where feasible, parking areas shall be located away from the South Dakota Highway 44 and South Dakota Highway 79 roadways so as to minimize the visual impact.
- p) Berming and shrub plantings shall be used to screen the parking lot ground plane from view from the South Dakota Highway 44 and South Dakota Highway 79 roadways.
- q) Landscape areas shall incorporate native plant materials where possible and shall be designed consistent with xeriscape principles wherever possible.
- r) All landscaping areas shall be irrigated with sensors installed to avoid wasting water.
- s) Berming and shrub plantings shall be used to screen the ground plane for retail uses allowing view opportunities to stores and building mounted signage.
- t) Landscaping for other non-residential uses shall be designed to focus views into the site at key image locations such as entries, focal points or architectural features, including building mounted signs.
- u) Six foot berms and shrubs shall be used to provide visual and noise separation between South Dakota Highway 44 and South Dakota Highway 79 roadways and residential areas that are adjacent to South Dakota Highway 44 and South Dakota Highway 79 roadways.
- v) Off premise advertising will be limited to the greatest degree possible.
- w) Pedestrian and bicycle paths shall be integrated into all development with linkages provided to both commercial and residential areas identified in the Study Area.
- x) All utility lines shall be relocated underground wherever feasible.






















- 2) The City shall implement the dark skies ordinance to address lighting throughout the community. The dark skies concepts shall be implemented immediately as part of the Planned Development review process throughout the Southeast Connector Neighborhood Area.

## Summary

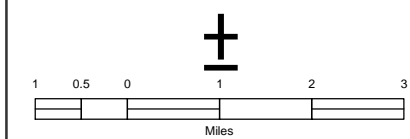
The Southeast Connector Neighborhood Area Future Land Use Plan anticipates that the residential growth patterns will continue, primarily as single family units. Additionally, the Plan identifies extension of the infrastructure to support the anticipated growth patterns. There is a need for additional parks and recreational opportunities in the Neighborhood Area and the Future Land Use Plan has identified areas where those sites would be appropriate. The Plan also identifies areas for professional offices and business parks and identifies commercial and industrial areas along the Heartland Expressway and Dakota, Minnesota & Eastern Railroad facilities.

# Rapid City Area Future Land Use Plan

## Neighborhood Study Areas

-  Airport
-  Black Hawk
-  Deadwood Avenue
-  Downtown/Skyline Drive
-  Elk Vale Road
-  Ellsworth
-  Nemo Road
-  North Rapid
-  Northeast
-  Piedmont Valley
-  Sheridan Lake Road
-  South Robbinsdale
-  Southeast Connector
-  Spring Creek
-  US Highway 16
-  West Rapid
-  City of Box Elder\*
-  City of Rapid City
-  Ellsworth AFB\*
-  City of Piedmont\*
-  City of Summerset\*

\*Future Land Use Plans not yet available



Rapid City Area  
Metropolitan Planning  
Organization

