

## APPENDIX ‘B’ FACILITY DESIGN & PLANNING STANDARDS

In designing and locating parks for public use, generalized standards have been studied across the nation, and recognized by the National Park and Recreation Association (NRPA). The Illinois Department of Natural Resources has also created a design manual for public improvements. These standards need to be used with judgment and care depending on individual circumstances and needs. The following considerations are also pertinent:

1. The standards outlined by NRPA are general guidelines that may need to be modified based on the needs of existing and future residents as identified in comprehensive planning process with public input.
2. The acquisition of land for parks should be based on strategic planning based on the needs of residents, geographic deficiencies and population trends. For example, neighborhood or smaller parks should be located in close proximity to each neighborhood.

ACTIVITY/ FACILITY	RECOMMENDED SPACE REQUIREMENTS	RECOMMENDED SIZE AND DIMENSIONS	RECOMMENDED ORIENTATION	NO. OF UNITS PER POPULATION	SERVICE RADIUS	LOCATION NOTES
<b>Badminton</b>	1620 sq. ft.	Singles – 17’x44’  Doubles – 20’x44’	Long axis north-south	1 per 5000	¼ -1/2 mile	Usually in school, recreation center or church facility. Safe walking or bike access.
<b>Basketball</b>  1. Youth 2. High School 3. Collegiate	2400-3036 sq. ft.  5040-7280 sq. ft.  5600-7980 sq. ft.	46-50’x84’  50’x84’  50’x94’  with 5’ unobstructed space on all sides	Long axis north-south	1 per 5000	¼ - ½ mile	Same as badminton. Outdoor courts in neighborhood and community parks, plus active recreation areas in other park settings.
<b>Handball</b>  (3-4 wall)	800 sq. ft. for 4-wall  1000 for 3-wall	20’x40’ – Minimum of 10’ to rear of 3-wall court. Minimum 20’ overhead clearance	Long axis north-south.  Front wall at north end.	1 per 20,000	15-30 minute travel time	4-wall usually indoor as part of multi-purpose facility. 3-wall usually outdoor in park or school setting
<b>Ice Hockey</b>	22,000 sq. ft. including support area	Rink 85’x200’ (minimum 85’x185’) Additional 5000 sq. ft. support area	Long axis north-south if outdoor	Indoor – 1 per 100,000 Outdoor – depends on climate	½ - 1 hour travel time	Climate important consideration affecting no. of units. Best as part of multi-purpose facility.
<b>Tennis</b>	Minimum of 7,200 sq. ft. single court (2 acres for	36’x78’. 12’ clearance on both sides; 21’ clearance	Long axis north –south	1 court per 2000	¼-1/2 mile	Best in batteries of 2-4. Located in neighborhood/community park or

	complex)	on both ends.				adjacent to school
--	----------	---------------	--	--	--	--------------------

ACTIVITY/ FACILITY	RECOMMENDED SPACE REQUIREMENTS	RECOMMENDED SIZE AND DIMENSIONS	RECOMMENDED ORIENTATION	NO. OF UNITS PER POPULATION	SERVICE RADIUS	LOCATION NOTES
<b>Volleyball</b>	Minimum of 4,000 sq. ft.	30'X60'. Minimum 6' clearance on all sides	Long axis north-south	1 per 5000	¼ - ½ mile	Same as other court activities (e.g. badminton)
<b>Baseball</b>	3.0-3.85 A minimum	Baselines – 90' Pitching distance 60 ½' foul lines – min. 320' Center field – 400'+	Locate home plate to pitcher throwing across sun and batter not facing it. Line from home plate through pitchers mound run east-north-east.	1 per 5000  Lighted 1 per 30,000	¼ - ½ mile	Part of neighborhood complex. Lighted fields part of community complex.
<b>1. Official</b>		Baselines – 60'				
<b>2. Little League</b>	1.2 A minimum	Pitching distance – 46' Foul lines – 200' Center field – 200' – 250'				
<b>Field Hockey</b>	Minimum 1.5 A	180' x 300' with a minimum of 6' clearance on all sides.	Fall season – long axis northwest to southwest. For longer periods north-south	1 per 20,000	15-30 minutes travel time	Usually part of baseball, football, soccer complex in community park or adjacent to high school.
<b>Football</b>	Minimum 1.5 A	160' x 360' with a minimum of 6' clearance on all sides.	Same as field hockey.	1 per 20,000	15-30 minutes travel time	Same as field hockey.
<b>Soccer</b>	1.7 – 2.1 A	195' to 225'x330' to 360' with a minimum 10' clearance all sides.	Same as field hockey.	1 per 10,000	1-2 miles	Number of units depends on popularity. Youth soccer on smaller fields adjacent to schools or neighborhood parks.
<b>Golf-driving Range</b>	13.5 A for minimum of 25 tees	900'x690' wide. Add 12' width for each additional tee.	Long axis south-west-northeast with golfer driving toward northeast.	1 per 50,000	30 minutes travel time.	Part of a golf course complex. As separate unit may be privately owned.
<b>¼ Mile Running Track</b>	4.3 A	Overall width – 276' Length – 600.02' Track width for 8 to 4 lanes is 32'.	Long axis in sector from north to south to north-west-south-east with finish line at northerly end.	1 per 20,000	15-30 minutes travel time	Usually part of high school, or in community park complex in combination with football, soccer, etc.
<b>Softball</b>	1.5 to 2.0 A	Baselines – 60' Pitching distance- 46' min. 40' women. Fast pitch field	Same as baseball	1 per 5,000 (if also used for youth baseball)	¼ - ½ mile	Slight differences in dimensions for 16" slow pitch. May also be used for youth baseball.

		Radius from Plate – 225' Between foul Lines. Slow Pitch – 275' (men) 250' (women)				
--	--	---	--	--	--	--

ACTIVITY/ FACILITY	RECOMMENDED SPACE REQUIREMENTS	RECOMMENDED SIZE AND DIMENSIONS	RECOMMENDED ORIENTATION	NO. OF UNITS PER POPULATION	SERVICE RADIUS	LOCATION NOTES
<b>Multiple Recreation Court (basketball, volleyball, tennis)</b>	9, 840 sq. ft.	120' x 80'	Long axis of courts with <i>primary</i> use is north-south	1 per 10,000	1-2 miles.	
<b>Trails</b>	N/A	Well defined head maximum 10' width, maximum average grade is 5% not to exceed 15%. Capacity rural trails – 40 hikers/day/mile. Urban trails – 90 hikers/day/mile.	N/A	1 system per region	N/A	
<b>Archery Range</b>	Minimum 0.65 A	300' Length x Minimum 10' wide between targets. Roped clear space on sides of range minimum 30', clear space behind targets minimum of 90'x45' with bunker.	Archer facing north = or – 45 degrees.	1 per 50,000	30 minutes travel time	Part of regional or metro park complex.
<b>Combination Skeet and Trap Field (8 Stations)</b>	Minimum 30 A	All walks and structures occur within an area approximately 130' wide by 115' deep. Minimum cleared area is contained within 2 superimposed segments with 100-yard radii (4 acres). Shot-fall danger zone is contained within 2 superimposed segments with 300-yard radii (36 acres).	Center line of length runs northeast-southwest with shooter facing northeast.	1 per 50,000	30 minutes travel time	Part of regional/metro park complex

ACTIVITY/ FACILITY	RECOMMENDED SPACE REQUIREMENTS	RECOMMENDED SIZE AND DIMENSIONS	RECOMMENDED ORIENTATION	NO. OF UNITS PER POPULATION	SERVICE RADIUS	LOCATION NOTES
<b>Golf</b>  <b>Par 3 (18 hole)</b>  <b>9-hole standard</b>  <b>18-hole standard</b>	50-60 A  Minimum 50 A  Minimum 110 A	Average length vary 600-2700 yd.  Average length –2250 yards  Average length 6500 yards	Majority of holes on north-south axis	--  1/25,000  1/50,000	½ to 1 hour travel time	9 hole course can accommodate 350 people/day.  18 hole course can accommodate 500-550 people/day. Course may be located in community or district park, but should not be over 20 miles from population center.
<b>Swimming Pools</b>	Varies on size of pool and amenities. Usually ½ to 2 A site.	<i>Teaching</i> - minimum of 25 yards x 45' even depth of 3 to 4 ft.  <i>Competitive</i> – minimum of 25 m x 16 m. Minimum of 27 square feet of water surface per swimmer. Ratios of 2:1 deck vs. water.	None-although care must be taken in siting of lifeguard stations in relation to afternoon sun.	1 per 20,000  (Pools should accommodate 3 to 5% of total population at a time.)	15 to 30 minutes travel time	Pools for general community use should be planned for teaching, competitive and recreational purposes with enough depth (3.4m) to accommodate 1m and 3m diving boards. Located in community park or school site.
<b>Beach Areas</b>	N/A	Beach area should have 50 sq. ft. of land and 50 sq. ft. of water per user. Turnover rate is 3. There should be 3-4 A supporting land per A of beach.	N/A	N/A	N/A	Should have sand bottom with slope maximum of 5 % (flat preferable). Boating areas completely segregated from swimming areas.
<b>Skate Parks</b>			N/A		N/A	Accessible to pedestrians, bicycles, and vehicles. Allow for viewing areas, and support such as drinking fountains, shade

National Recreation and Park Association