



SMART TOOLS FOR RECREATION PLANNING

EDUCATIONAL TRACK PLANNING AND INNOVATIVE GOVERNMENT NPC188215 – Room 03

American Planning Association
National Conference
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SMART TOOLS FOR RECREATION PLANNING

Recreation for Residential Development

Panel

Montgomery County Planning Department

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Christopher McGovern, ITI Supervisor

Pamela Zorich, Research Coordinator

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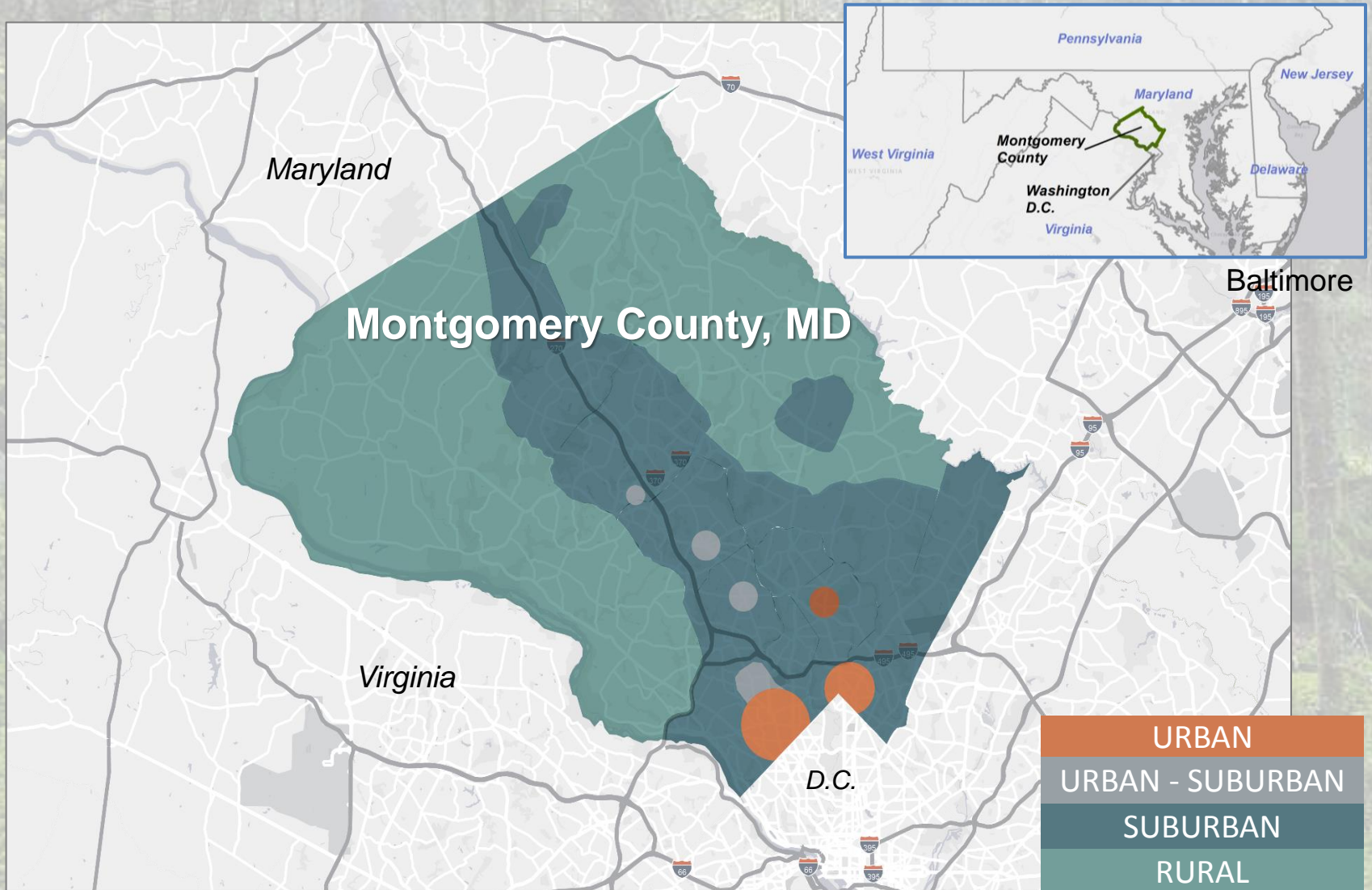
Grace E. Fielder, President, P.L.A., A.I.C.P., A.P.A.





SMART TOOLS FOR RECREATION PLANNING

Recreation for Diverse Land Use Patterns





What are Recreational Guidelines?

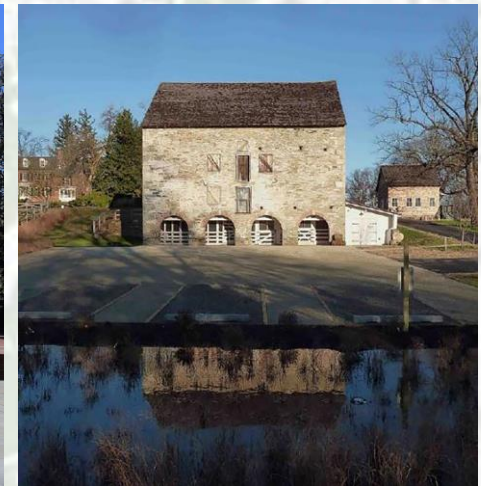
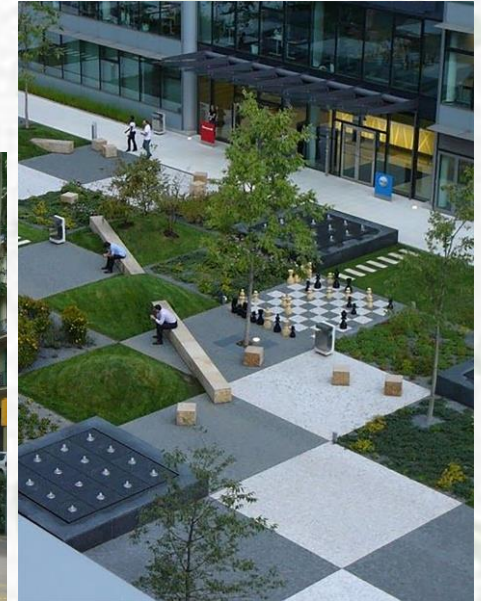
- A set of guidelines for housing development to assure recreation opportunities for future residents
 - Required by Zoning Ordinance
- Initially established by the Montgomery Planning Board in 1992 to supplement public sector recreation facilities
- Guidelines establish predictable requirements to ensure safe, adequate and efficient recreational facilities for private residential development in the County
- Applied to regulatory review of subdivision and site plans



Recreation and County Planning

The Big Picture: Integrating Recreation and Planning Sectors

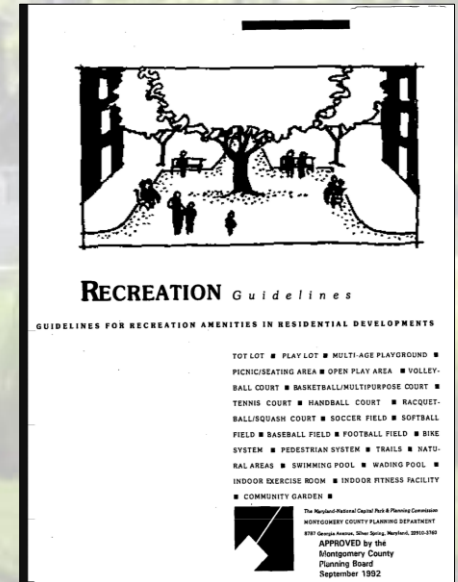
- Urban Design
- Infill Development
- Infrastructure Planning
- Transportation
- Environmental
- Historic Preservation



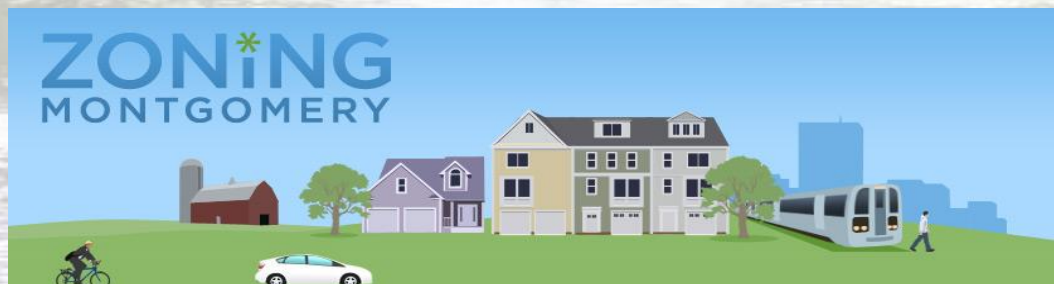


Why Update Recreational Guidelines?

- 25 years since last studied (1992)



- New Zoning Ordinance (2014)





Why Update Recreational Guidelines?

- Changes in Development Types



- Urban “infill”





Why Update Recreational Guidelines?

- Changing recreation patterns and activity types
- Link between recreation and public health
- New facilities for range of ages and abilities





Why Update Recreational Guidelines?

- Developers need transparency, flexibility, predictability
- Greater accuracy in analysis of scale, density for infill
- Location and distance to existing public facilities.





The Web Tool: A Point-Based System

- Quantitative system from 1992 Guidelines
(Demand + Supply = Match)
- Transparent process
- Predictable, consistent accounting
- Scenario comparisons – facility choices
- Geo-spatial data – location based
- Master & Sector Plans: Public Recreation Open Space Plan





Web Tool Design

- Intuitive, easy-to-use tool
- No log-in, user-prompted
- Bookmark scenarios

RECREATION FACILITIES CALCULATOR

[Bookmark](#) [Demand Table](#) [Supply Table](#)

YOUR CALCULATOR SESSION ID IS: 1461
 PLEASE REMEMBER OR WRITE DOWN YOUR CALCULATOR SESSION ID IF YOU WISH TO RETRIEVE THE SAVED CALCULATIONS LATER.

ENTER SCENARIO ID NUMBER TO GO TO: **GO** **CLONE SCENARIO**

STEP 1 ENTER NUMBER OF HOUSING UNITS IN THE PROPOSED PROJECT (CALCULATE DEMAND POINTS)

Housing Type	Housing Type Code	Quantity	Total	Children	Teens	Young Adults	Adults	Seniors
Single-Family Detached	SFD	0	0.00	0.00	0.00	0.00	0.00	0.00
Townhouses and Single-Family Attached	TH	0	0.00	0.00	0.00	0.00	0.00	0.00
Multiple-Family, 4 stories or less	Mid-Rise	0	0.00	0.00	0.00	0.00	0.00	0.00
Multiple-Family, 5 stories or more	Hi-Rise	0	0.00	0.00	0.00	0.00	0.00	0.00
Total Housing Units and Total Demand Points:		0	0.00	0.00	0.00	0.00	0.00	0.00

SAVE **CANCEL**

STEP 2 GEO-LOCATION: CLICK ON THE MAP TO CHOOSE THE PROPOSED PROJECT LOCATION

Master Plan
 Parks
 Facilities
 Trails
 Bikeway
 Parcels

OFF-SITE FACILITIES WITHIN HALF-MILE RADIUS FROM PROJECT LOCATION

Off-site...	Park Facility	Total	Child.	Teens	Young Ad.	Adults	Seniors
Total Offsite Supply Points	0	0	0	0	0	0	0
35% of Total Offsite Supply	0	0	0	0	0	0	0
Max Allowed Plan (35% of T...	0	0	0	0	0	0	0
Actual Assigned Offsite Su...	0	0	0	0	0	0	0

STEP 3 ENTER NUMBERS OF PROPOSED RECREATION FACILITIES (CALCULATE SUPPLY POINTS)

ADD CUSTOM FACILITY

Off-site...	Recreation Facility	Bonus	Is Pa...	Total	Children	Teens	Young A...	Adults	Seniors	Total	Children	Teens	Young Ad.	Adults	Seniors
0	Photo Seating	<input type="checkbox"/>		1	1	1.5	3	3	3	0	0	0	0	0	0
0	Public Art Seating - Ad...	<input type="checkbox"/>		3	3	3	5	5	5	0	0	0	0	0	0
0	Interactive Outdoor Mu...	<input type="checkbox"/>		3	3	3	2	4	4	0	0	0	0	0	0
0	Landscaping Elements - ...	<input type="checkbox"/>		4	3	3	2	4	4	0	0	0	0	0	0
0	Outdoor Game Station	<input type="checkbox"/>		0	0	3	3	2	2	0	0	0	0	0	0
0	Outdoor Fitness Station	<input type="checkbox"/>		0	0	3	3	2	2	0	0	0	0	0	0
0	Interactive Adaptive Rec...	<input type="checkbox"/>		4	6	6	9	9	9	0	0	0	0	0	0
0	Terraced Garden Area	<input type="checkbox"/>		2	2	2	2	2	2	0	0	0	0	0	0
0	Shade, Sign and Seating	<input type="checkbox"/>		0	3	4	5	5	4	0	0	0	0	0	0
0	Golfing Area	<input type="checkbox"/>		0	0	2	6	6	5	0	0	0	0	0	0
0	Performance Seating - ...	<input type="checkbox"/>		2	3	4	4	6	6	0	0	0	0	0	0
0	Shade Wheel Ramp	<input type="checkbox"/>		0	0	1	2	2	1	0	0	0	0	0	0
0	Shade Support Station	<input type="checkbox"/>		0	0	3	3	3	3	0	0	0	0	0	0

SAVE **CANCEL**

STEP 4 VIEW RESULTS: TOTAL DEMAND POINTS, TOTAL SUPPLY POINTS AND ADEQUACY

Age Group	Demand	Offsite Su...	Onsite Su...	Total Supply	Supply Need...	Adequacy	Adequacy I...
Totals (0 - 4 yrs)	0.00	0	0	0.00	0	Adequate	
Children (5 - 11 yrs)	0.00	0	0	0.00	0	Adequate	
Teens (12 - 17 yrs)	0.00	0	0	0.00	0	Adequate	
Young Adults (18 - 34)	0.00	0	0	0.00	0	Adequate	
Adults (35 - 64 yrs)	0.00	0	0	0.00	0	Adequate	
Seniors (65+ yrs)	0.00	0	0	0.00	0	Adequate	

REPORT



Web Tool Design: Step 1

- Demand: # Dwelling Units, Housing Types, Age Groups

RECREATION FACILITIES CALCULATOR

[Bookmark](#) [Demand Table](#) [Supply Ta](#)

YOUR CALCULATOR SESSION ID IS: 7359

PLEASE REMEMBER OR WRITE DOWN YOUR CALCULATOR SESSION ID IF YOU WISH TO RETRIEVE THE SAVED CALCULATIONS LATER.

ENTER SCENARIO ID NUMBER TO GO TO: GO CLONE SCENARIO

STEP 1 ENTER NUMBER OF HOUSING UNITS IN THE PROPOSED PROJECT (CALCULATE DEMAND POINTS)

Housing Type	Housing Type Code	Quantity	Tots	Children	Teens	Young Adults	Adults	Seniors
Single-Family Detached	SFD	29	4.35	10.15	10.15	7.83	21.17	4.06
Townhouses and Single-Family attached	TH	5	0.70	1.10	0.80	2.65	3.65	0.55
Multiple-Family, 4 stories or less	Mid-Rise	0	0.00	0.00	0.00	0.00	0.00	0.00
Multiple-Family, 5 stories or more	Hi-Rise	0	0.00	0.00	0.00	0.00	0.00	0.00
Total Housing Units and Total Demand Points:		34	5.05	11.25	10.95	10.48	24.82	4.61

SAVE
CANCEL



Web Tool Design: Step 2

- Geolocation
- Existing Public Facilities: Parks, Recreation

STEP 2 GEO-LOCATION: CLICK ON THE MAP TO CHOOSE THE PROPOSED PROJECT LOCATION

Master Plans
 Parks
 Facilities
 Trails
 Parcels

Project is located in Master Plan: SILVER SPRING CBD

Quantity	Park Facility	Tots	Children	Teens	Young Adults	Adults	Seniors
1	Basketball Ct	3	10	15	12	6	2.5
1	Gazebo	5	5	3	2	4	4
1	Handball Ct	0	1.5	10	20	20	2
1	Trail System	1.28	2.28	0.93	12.54	10.59	2.72
1	Skate Park	0	6	10	12	7	1
2	Tennis Ct	0	3	20	32	24	6
3	Playground	0	27	9	6	9	6
	Total Offsite Supply Points	9.28	54.78	67.93	96.54	80.59	24.22
	35% of Total Offsite Supply	3.25	19.17	23.78	33.79	28.21	8.48
	Max Allowed Pts 35% of Total	4.48	3.99	2.17	29.26	24.71	9.52
	Actual Assigned Offsite Points	3.25	3.99	2.17	29.26	24.71	8.48



Web Tool Design: Step 3

Recreation Facilities Proposed

3.4 Facilities and Supply Values

Shading denotes new facilities types

Table 3.7 Recreation Facilities and Supply Values

2016 Recreation Facilities		03 Tots	04 Children	05 Teens	06 Young Adults	07 Adults	08 Seniors
#	Facility Name	Page					
1	Pedestrian Connection - Trail System	40	0.30 x D1	0.20 x D2	0.15 x D3	0.15 x D4	0.15 x D5
2	Heart Smart Trail	42	0	9	10	12	12
3	Fitness Trail	43	0	8	12	14	14
4	Pedestrian Bridge	44	5	10	12	12	12
5	Bikeways	45	0.05 x D1	0.10 x D2	0.15 x D3	0.15 x D4	0.15 x D5
6	Bicycle Repair Room (Indoor)	46	0	9	10	12	10
7	Bicycle Parking Garage	47	0	7	14	14	12
8	Dog Park	48	0	2	3	5	6
9	Dog Run	50	0	0	4	5	6
10	Dog Cleaning Station	52	0	0	2	3	3
11	Indoor Community Space	53	0.30 x D1	0.15 x D2	0.30 x D3	0.30 x D4	0.30 x D5
12	Performance Space (Indoor)	54	4	8	8	9	10
13	Indoor Gymnasium or Exercise Room	55	0.30 x D1	0.10 x D2	0.30 x D3	0.30 x D4	0.30 x D5
14	Adaptive Sensory Gymnasium (Indoor)	56	9	9	7	7	5
15	Yoga Room	58	0	2	4	9	9
16	Racquetball/Handball/Squash	59	0	1.5	10	20	20
17	Futsal Court	60	0	7	6	7	5
18	Indoor Fitness Room	61	0.00 x D1	0.10 x D2	0.10 x D3	0.25 x D4	0.20 x D5
19	Open Grass Area Lawn - Small (5,000 sf)	62	3	4	9	9	3

STEP 3 ENTER NUMBERS OF PROPOSED RECREATION FACILITIES (CALCULATE SUPPLY POINTS)

ADD CUSTOM FACILITY

Quantity	Recreation Facility	Bonus P...	Is Pub...	Tots Pts	Children Pts	Teens Pts	Young Ad...	Adults Pts	Seniors Pts	Tots	Children	Teens	Young Adults	Adults	Seniors
0	Outdoor Fitness Station		<input type="checkbox"/>	0	0	3	3	2	2	0	0	0	0	0	0
0	Inclusive Adaptive Recreati...		<input type="checkbox"/>	4	6	6	9	9	9	0	0	0	0	0	0
0	Terraced Garden Area		<input type="checkbox"/>	2	2	2	2	2	2	0	0	0	0	0	0
0	Stairs, Steps and Railings		<input type="checkbox"/>	0	3	4	5	5	4	0	0	0	0	0	0
0	Grilling Area		<input type="checkbox"/>	0	0	2	6	6	5	0	0	0	0	0	0
0	Performance Setting - Stag...		<input type="checkbox"/>	2	5	4	4	6	6	0	0	0	0	0	0
0	Bicycle Wheel Ramp		<input type="checkbox"/>	0	0	1	2	2	1	0	0	0	0	0	0
0	Bicycle Support Station		<input type="checkbox"/>	0	0	3	3	3	3	0	0	0	0	0	0
1	Pedestrian Bridge		<input type="checkbox"/>	5	10	12	12	12	12	5	10	12	12	12	12
1	Dog Park		<input type="checkbox"/>	0	2	3	5	6	6	0	2	3	5	6	6
1	Indoor Community Space		<input type="checkbox"/>	.1xD1	.15xD2	.3xD3	.3xD6	.3xD4	.4xD5	2	2.1	1.8	43.8	33.6	20
1	Adaptive Sensory Gymnasi...		<input type="checkbox"/>	9	9	7	7	5	5	9	9	7	7	5	5
1	Yoga Room		<input type="checkbox"/>	0	2	4	9	9	9	0	2	4	9	9	9
1	Indoor Fitness Room		<input type="checkbox"/>	0xD1	.1xD2	.1xD3	.25xD6	.2xD4	.15xD5	0	1.4	0.6	36.5	22.4	7.5
6	Total Supply Points:		<input type="checkbox"/>							16.00	26.50	28.40	113.30	88.00	59.50

SAVE CANCEL

5	7	8	3
0.10 x D3	0.10 x D4	0.10 x D5	0.05 x D6
0.20 x D3	0.20 x D4	0.20 x D5	0.30 x D6
0.10 x D3	0.15 x D4	0.20 x D5	0.25 x D6
3	7	8	5
2	3	3	3
3	2	4	2
3	2	4	2
4	3	10	8
5	10	8	7
6	7	7	2
4	7	7	5
2	3	3	2
5	7	4	3
7	10	7	5
2	9	10	6
6	18	15	6
5	10	8	5
6	8	8	6
5	8	8	6



Web Tool Design: Step 4

- Export Results to Report

STEP 4 VIEW RESULTS: TOTAL DEMAND POINTS, TOTAL SUPPLY POINTS AND ADEQUACY

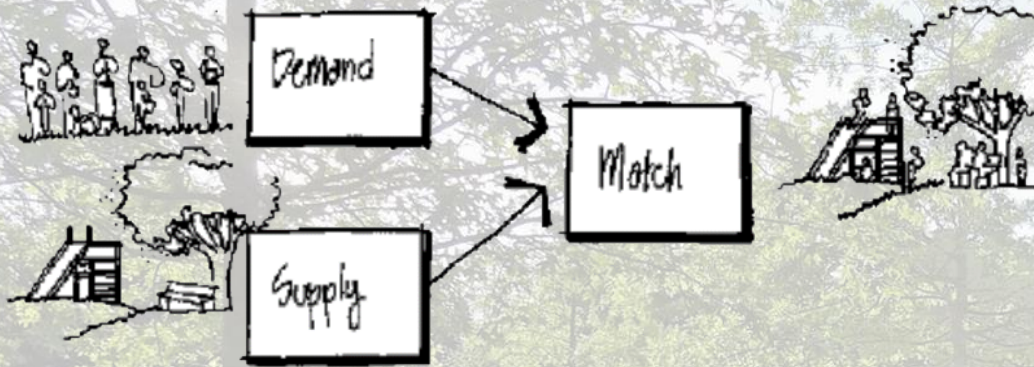
Age Group	Demand	Offsite Supply	Onsite Supply	Total Supply	Supply Needed	Adequacy	Adequacy Icon
Tots (0 - 4 yrs)	20.00	5.6	16	21.60	0	Adequate	✓
Children (5 - 11 yrs)	14.00	4.9	26.5	31.40	0	Adequate	✓
Teens (12 - 17 yrs)	6.00	2.1	28.4	30.50	0	Adequate	✓
Young Adults (18 - 34 yr)	146.00	44.73	113.3	158.03	0	Adequate	✓
Adults (35 - 64 yrs)	112.00	31.36	88	119.36	0	Adequate	✓
Seniors (65+ yrs)	50.00	8.23	59.5	67.73	0	Adequate	✓

REPORT



SMART TOOLS FOR RECREATION PLANNING

Deriving Recreation Demand Points



Recreation Demand:

varies by person's age
& housing type





SMART TOOLS FOR RECREATION PLANNING

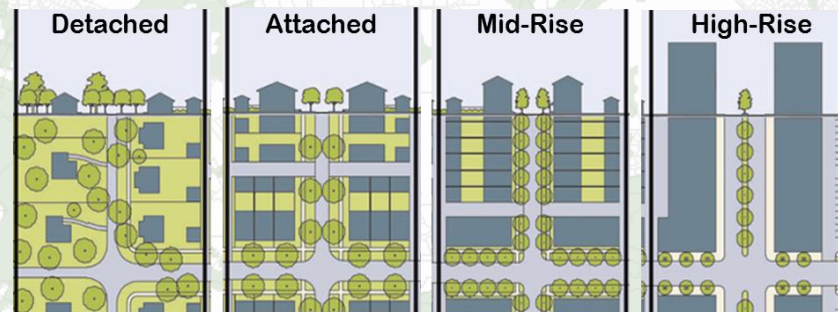
Deriving Recreation Demand Points

Age Profiles by Housing Structure Types

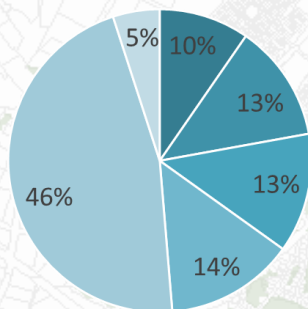
Age Groups

Tots	Children	Teens	Young Adults	Adults	Seniors
0-4	5-11	12-17	18-34	35-64	65+

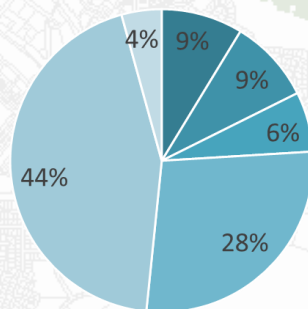
Recently Built (2005-2014)



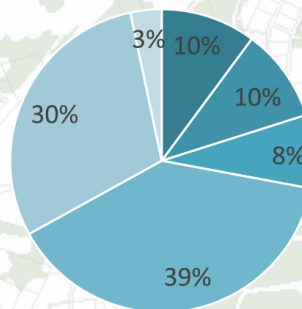
Age Percentage by Structure Type



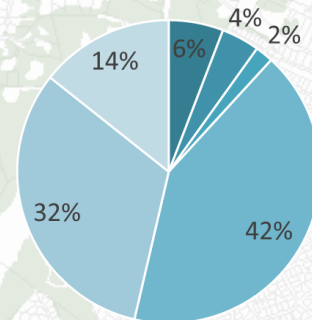
Detached



Attached



Mid-Rise



High-Rise



Source: Public Use Microdata Sample, 2014 American Community Survey

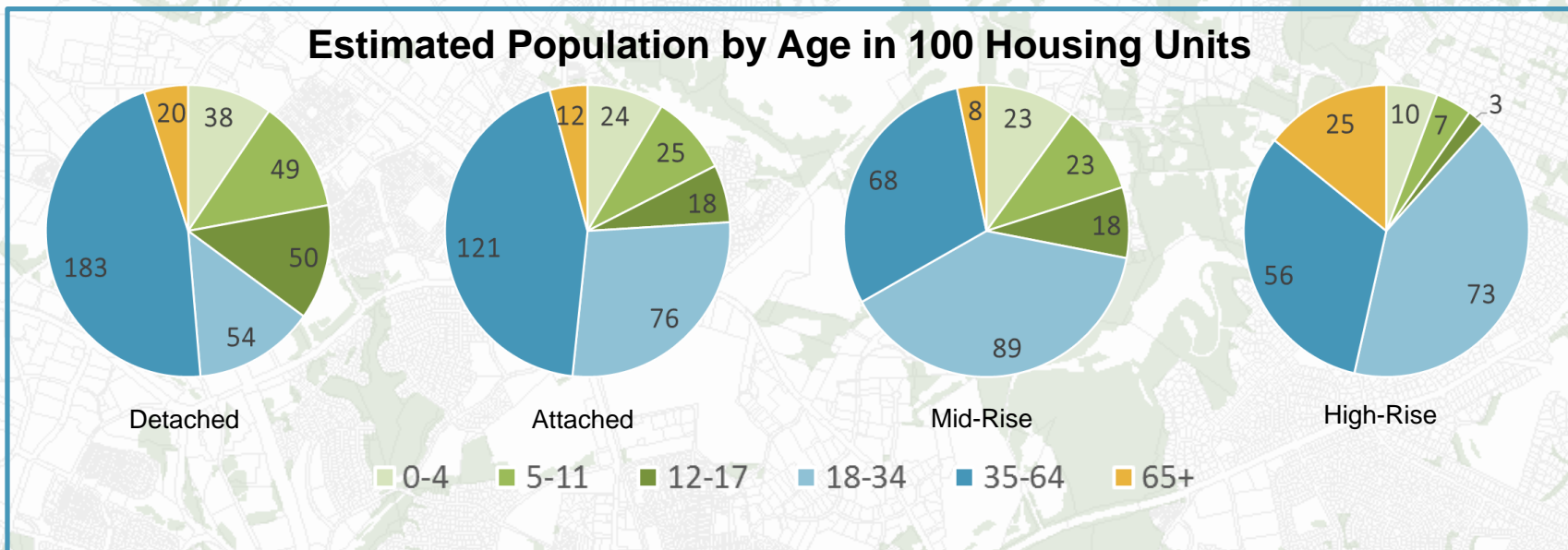


Standardized Age by Housing Type

- Age distribution in each housing type standardized to 100 units

Population Yield per 100 Housing Units				
	Detached	Attached	Mid-Rise	High-Rise
Average HH Size	3.95	2.75	2.29	1.75
Pop/100 units	395	275	229	175

Estimated Population by Age in 100 Housing Units

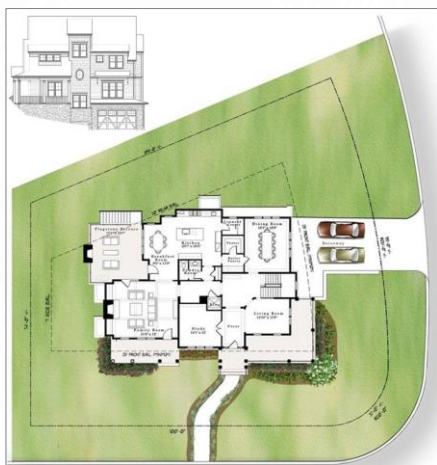




SMART TOOLS FOR RECREATION PLANNING

Deriving Recreation Demand Points

Recreation demand weighted proportionally to amount of recreation that must be provided outside of the household



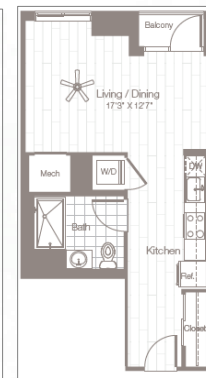
Lower factor

Activity occurring on person's property, indoors or within a private yard



Higher factor

Demand met outside private household in surrounding shared public recreation space





SMART TOOLS FOR RECREATION PLANNING

Deriving Recreation Demand Points

Recreation demand points



Attached Unit: 24 tots X .6= 14 demand points/100 units

Recreation Demand Points per 100 Dwelling Units						
	0-4	5-11	12-17	18-34	35-64	65+
Detached	15	35	35	27	73	14
Attached	14	22	16	53	73	11
Mid-rise	16	23	18	71	48	8
High-rise	10	7	3	73	56	25



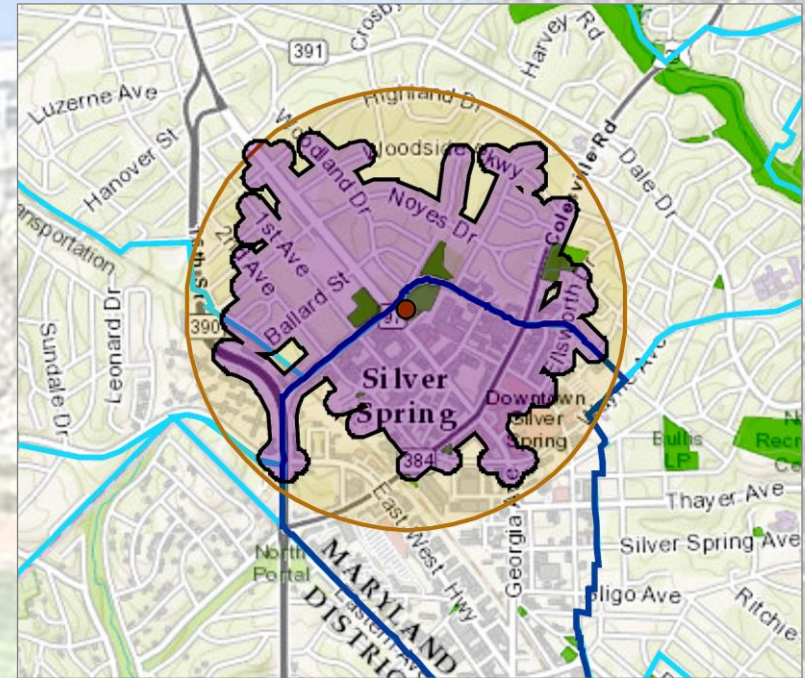
SMART TOOLS FOR RECREATION PLANNING

Deriving Recreation Supply Points

Recreation Supply Points

Existing public facilities data:

- Schools, Parks,
- Community Centers
- Privately-owned Public Spaces
- Bikeways and Trails



Generation of the 10-minute walkshed:

- Shows distance to all accessible public facilities within ¼ mile that are eligible for off-site recreation credit



Incentives for Providing Public Facilities

Master Plan Recommended Facilities

- Bonus supply credit for fulfilling master plan recommendations for publicly accessible open space or recreation facilities



Table 11.6.1 Approved Facilities Incentive List			
Facility Name	Master Plan Area	Source Plan	Bonus
Dog Park	Wheaton	2012 PROS	10%
Dog Park	Silver Spring	2012 PROS	10%
Dog Park	White Flint	2012 PROS	10%
Dog Park	Bethesda	2012 PROS	10%



Incentives for Providing Public Facilities

Publicly Accessible Private Open Space

- Bonus supply credit for providing public access to privately-owned recreation space



Quantity	Recreation Facility	Bonus P...	Is Pub...
0	<u>Terraced Garden Area</u>		<input type="checkbox"/>
0	<u>Stairs, Steps and Railings</u>		<input type="checkbox"/>
0	<u>Grilling Area</u>		<input type="checkbox"/>
0	<u>Performance Setting - Stage Outdoor</u>		<input type="checkbox"/>
0	<u>Bicycle Wheel Ramp</u>		<input type="checkbox"/>
0	<u>Bicycle Support Station</u>		<input type="checkbox"/>
1	<u>Pedestrian Connection - Trail System</u>		<input type="checkbox"/>
1	<u>Bikeways</u>		<input type="checkbox"/>
1	<u>Natural Area</u>	10%	<input checked="" type="checkbox"/>
1	<u>Ornamental Garden or Sculpture Garden</u>		<input type="checkbox"/>
1	<u>Playground (Age 2-5), [Tot Lot]</u>		<input type="checkbox"/>
1	<u>Urban Plaza</u>	10%	<input checked="" type="checkbox"/>
2	<u>Picnic/Seating</u>	10%	<input checked="" type="checkbox"/>
8	Total Supply Points:		<input type="checkbox"/>





Incentives for Providing Public Facilities

Custom Facilities

- Allows developers or owners to propose new facilities types



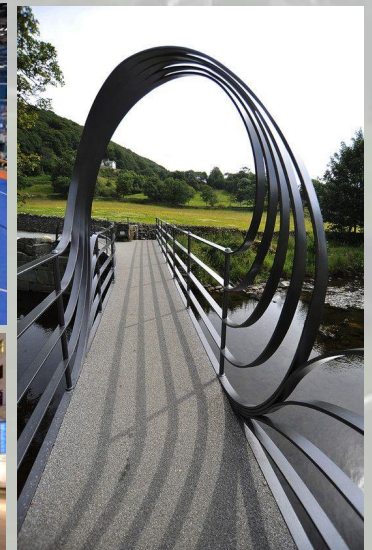
11.4.1 Questionnaire

11.4.1 Custom Recreation Facilities Proposal -- Evaluation Levels	
Descriptive Information	1. Name of project and recreation facility
	2. Description of recreation facility
	3. Is the facility intended for public access?
	A. Yes
B. No	
Base Value Determination Questions	4. Is facility co-located with a stormwater management facility?
	A. Yes
	B. No
	5. What is the size of this facility?
A. Less than 250 square feet	
B. 250 - 499 square feet	
C. 500 - 1,999 square feet	
D. 2,000 - 19,999 square feet	
E. Larger than 20,000 square feet	
Base Value Modifier Questions	6. Which choice best describes this facility?
	A. Indoors
	B. Natural - Untreated
	C. Outdoors - Hardscaped (paved)
D. Outdoors - Landscaped	
Base Value Modifier Questions	7. Which choice best describes the lighting for this facility?
	A. Facility has lighting for users and spectators
	B. Facility has outdoor accent lighting only
	C. Facility has no lighting
Base Value Modifier Questions	8. Does this facility provide recreational opportunity for tots with:
	A. Minimal level of supervision
	B. Moderate level of supervision
	C. High level of supervision
Base Value Modifier Questions	9. Does this facility encourage physical or aerobic exercise?
	A. Yes
	B. No
	10. Is this facility suitable for teens?
A. Yes	
B. No	



Categories of Recreation

- 16 Categories of Recreation Facilities
80 Facilities Types
47 New Facilities
33 Traditional Facilities
- Cut Sheets with Specifications





Typical Rec Categories



Active Connections



1. Pedestrian Connection System or Trail System

Definition A pedestrian system within the project site, such as a walking path sidewalk or hiking trail, that provides access to other public facilities, recreational opportunity or activity within natural areas.

Size Width will vary depending on site conditions. Minimum length requirement: 1/4 mile. Specifications should follow M-NCPPC standards for shared use trails, pedestrian connections. Safety lighting and call boxes should be included where appropriate. Materials may vary: boardwalk, paved, woodchip, natural surface, sensory surface, gravel.

Possible Activities Walking, hiking, nature study, links between nature areas, or public open spaces, public facilities, connections to natural areas, community gardens.

Location On private property as part of residential development or on public property as part of the regional trail system. May be located within Category I conservation easements.

Design Criteria Connections should provide adequate access to public facilities, public open space, other recreation facilities or natural areas, such as woodland, wetland, ponds and creeks. Shared use paths may be included. For natural areas: Resting areas should be provided where appropriate.

Components Requirements Must conform to the Maryland-National Capital Park and Planning Commission's Environmental Guidelines and be designed to maximize protection and function of natural features. For nature trails, pervious surfaces are encouraged. The trail should be designed to minimize erosion. Benches, picnic tables, watering stations, interpretive signage, call boxes. Design and construction of pedestrian connections, extensions or trails must conform to the requirements of ADA Amendments Act of 2008.

Trail Extensions The web tool offers a "pedestrian route extension." This web tool component function may be used in the case of a trail or pedestrian route extension that provides access to an off-site public recreational facility, creating a newly extended walk shed.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Pedestrian Connections	0.10 x D1	0.20 x D2	0.15 x D3	0.15 x D4	0.15 x D5	0.10 x D6



Right: Nature trail, Texas Park and Wildlife Center

Far right: Nature trail, Montgomery County Parks, Montgomery County, MD



Typical Rec Categories

Bicycle Facilities



5. Bikeways

- Definition** A system consisting of bike routes that provides safe bicycle access and recreational opportunities for the community.
- Size** Varies per facility type. Refer to the Montgomery Countywide Bikeways Functional Master Plan for specific dimensions.
- Possible Activities** Bike riding
- Location** On private property as part of residential development or on public property within the public right-of-way.
- Design Criteria**
 - Bike routes should provide safe linkages to neighborhood destinations, such as public transportation and public facilities, and access to the countywide bike network.
 - Bikeways should be provided through natural areas wherever possible.
 - Resting areas and bike repair stations should be provided.
 - Must comply with the Montgomery County Bicycle Master Plan.
- Components** Benches, bicycle support stations, bicycle repair rooms, bicycle storage areas.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Bikeways	0.05 x D1	0.10 x D2	0.15 x D3	0.15 x D4	0.15 x D5	0.10 x D6



Protected bicycle lane, Washington DC



Typical Rec Categories

Child Play Areas



27. Playground - Play Area

Definition A facility with play features to support a range of activities for children ages 5-12.

1,500 square feet minimum; 5 activities.

Possible Activities All ages: climbing, swinging, spinning, sliding, balancing, jumping, hanging, creative play, crawling, hiding, rocking, rolling, bouncing, digging, sand and water play.

Older only (5-12): athletic/exercise equipment, some adventure activities. All facilities must include climbing and sliding activities.

Location Smaller facilities may be integrated into a residential development or a local public park.

Larger facilities should be accessibly located in a central business district.

Setbacks 50 feet from nearest building, 30 feet from curb.

Setbacks may be reduced in multi-family communities provided that other measures such as landscaping and fencing are used as necessary to achieve compatibility with adjacent uses.

Design Criteria Provide shade trees and plantings as needed to screen the area.

Provide adjacent seating area and trash receptacles.

Comply with government agency requirements for playground design and safety.

Resources United States Consumer Protection Safety Commission National Program for Playground Safety: <http://playgroundsafety.org/standards/cpsc>
Design and construction of playgrounds must conform to the requirements of ADA Amendments Act of 2008

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Children's Play Area	0	9	3	2	4	2





Typical Rec Categories



Open Grass Lawns



21. Open Grass Area Lawn - Urban

Definition An open, level grass area to accommodate relaxation, play or sports activity within a high density residential or mixed-use community within an urban area.

Size Urban: 2,000 square feet minimum.

Possible Activities Small, bounded areas for active recreation; areas designed for seating, rest or reflection; areas for social gatherings such as picnics.

Location Integrated into residential development or available as public open space.

Design Criteria Setbacks: 30 feet from building, 30 feet from curb.

Lawn area is defined and contained by architecture and landscaping.

Consider compatibility with immediately surrounding uses when placing lawn.

Setbacks may be reduced in multifamily housing and townhouse communities, provided that other measures, such as landscaping and fencing, can be used effectively to screen or to achieve compatibility with the open lawn area.

Design of the space should be open and inviting at the sidewalks, easily seen; low-height design elements should convey openness with generous entry paths.

Supply Values

Lawn Areas	Tots	Children	Teens	Young Adults	Adults	Seniors
Urban	2	3	5	7	8	3



Urban lawn area, Yards Park, Washington, DC





New Rec Categories



Adventure Sports



60. Skate Spot

Definition	An area containing street-style obstacles for skateboarding.
Size	2,500 to 5,000 square feet.
Possible Activities	Skateboarding.
Location	Integrated to residential development or part of a local public park.
Design Criteria	Consider urban locations where the spot can be safely integrated with the urban streetscape, or park locations where the spot can be provided with enough area to be utilized safely. Include events, such as ledges, steps, railings or sculptural elements, constructed as part of the course.
Resources	Skate Park Guide http://www.skateparkguide.com/design_basics.html

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Skate Spot	0	4	9	11	5	1



Rob Dyrdek Safe Skate Spot,
Cesar Chavez Park,
Phoenix, AZ



Sculpture skate spot,
Barcelona, Spain



New Rec Categories



Dog Facilities



8. Dog Park

- Definition** Fenced area where dogs can run off-leash while supervised.
- Size** 3 acres or more preferred; 1 acre minimum
- Location** Accessible location within central business district area; integrated into local public park; Integrated into residential development.
- Design Criteria**
 - Fence should be high enough to prevent dogs from jumping over.
 - Include a double-gated entrance to separate incoming and outgoing, large and small dogs.
 - Include separate play areas for different sizes of dogs.
 - Provide a variety of activity types: jumping, running, agility practice for dogs.
 - Include benches and seating areas for owners with clear view of play area and clear visibility of the animals. Provide watering stations for dogs and owners. Include benches and seating areas for owners with clear view of play area.
 - Include shaded areas (gazebos, canvas shade structures or shade trees).
 - Provide dry and wet stations for dog play.
- Elements** Fencing, benches, picnic tables, movable seating, watering stations, shade structures
- Screening/Landscaping** Perimeter landscape for screening if space is available. Tree areas for shading.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Dog Park	0	2	3	5	6	6



Elsworth Urban Dog Park, M-NCPPC, Silver Spring, MD



New Rec Categories



Inclusive Recreation - Child



29. Playground: Inclusive Recreation

Definition	A recreation facility that includes opportunities for sport or recreation for children with disabilities.
Size	Will vary depending on facility location or equipment type.
Possible Activities	Climbing, swinging, spinning, sliding, balancing, jumping, hanging, creative play, crawling, hiding, rocking, rolling, bouncing, digging, sand and water play.
Location	Integrated into residential development; part of a local public park; where designated by a facilities plan or local area plan.
Design Criteria	<p>Include all types of play and insure a mix of physical, sensory, and social activities. Provide areas of shade, sun and color. Provide multiple challenge levels for each type of physical play. Provide activities for balance, sensory integration, learning about safe visual and physical cues. Provide a quiet place for retreat to accommodate over-stimulation.</p> <p>Ensure modular structures provide alternative activities on each deck level. Encourage similar play at various ability levels in close proximity. Cluster activities into pods for better management. Consider unitary surfacing to improve wheel access and navigation. Ensure the most popular activities are accessible by all ability levels. Provide travel routes comfortable enough to accommodate wheelchairs.</p> <p>Source: Playground Professionals</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
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Inclusive, accessible carousel, Clemjontri Park, McLean, VA, Design by Grace Fielder and Associates, Chartered.



New Rec Categories



Inclusive Recreation - Adult



67. Inclusive Recreation Center for Adults (Outdoor)

- Definition** An outdoor setting that provides inclusive recreation opportunities for those with disabilities and functions as a center for social interaction, physical fitness and emotional well-being.
- Size** 3,000 square feet
- Possible Activities** Sports, social events, educational activities.
- Location** Urban or suburban residential or mixed-use environments.
- Design Criteria** Accommodates activities for young adults, adults and seniors who require adapted recreational exercise and fitness programs.
 The center should provide for a minimum of 10 physical activity types (or activity stations). The activity program, form and function should accommodate a full range of disabilities, physical, cognitive and sensory limitations, i.e., mobility restrictions, wheelchair access, hypo- and hyper sensory conditions, etc.
 Design focus should create a centralized gathering space with group seating and shade and water fountains. Siting should consider prevailing winds, solar orientation and slope to provide optimum access for all groups.
 A track for running, assisted racing, wheelchair racing, etc. should be provided with seating and shade stations. If possible, the center should adjoin an accessible trail with a natural area to provide a variety of recreational experiences.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Inclusive Recreation Center	2	4	12	25	25	25



Prototype for Norwell Universal Fitness Park, Norwell Outdoor Fitness Company, Copenhagen, Denmark





New Rec Categories



Formal Urban Spaces

Pocket Park



Through-Block Connection



Neighborhood Green



Urban Plaza



New Rec Categories

Landscape Elements for Toddlers



71. Landscape Elements for Toddlers and Children (Recreation Element)

Definition A uniquely defined landscaped, paved or organic space created within a public open space that encourages exploration, interaction and play by toddlers and children.

Design Criteria The space defined should provide a sense of containment with clearly articulated boundaries. Its features—landscaping or paving—should promote curiosity and exploration by young children or toddlers, through visual stimulation, sensory variety, texture or three-dimensional qualities. Materials should be of high quality and used to fulfill an identifiable design scheme.

The area must allow visibility of the child at all times, while providing a visually interesting and attractive elements on its own that is well integrated into the overall public open space..

Minimum 1,500 square feet in area.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Interactive Art	4	3	3	2	4	4



Clockwise from top left:
Jardin de Plantes,
Nantes, France



Sleeping chick,
Flower pot heads,
Sleeping chick and visitors



Case Study: Bethesda Mews

Recreation and Sustainability

- American College of Cardiology Site
- R-60/MPDU/Optional Method
- 34 Dwelling Units (Affordable Units)
- 9.87 Acres
- Bethesda/Chevy Chase Master Plan
- Cluster Development Marketing





Case Study: Bethesda Mews

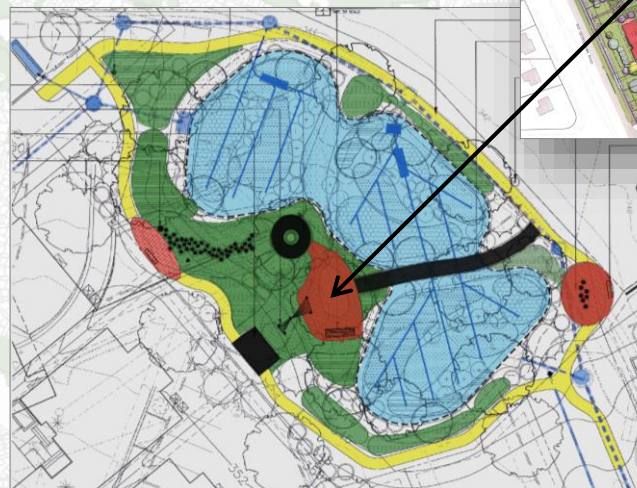
Recreation and Sustainability

Stormwater Facilities, ESD and Recreation

- Efficient use of land
- Explorative play
- Increased housing units

Natural Areas

- Dedication of forested areas
- Category I forestation easement
- Recreation supply credit





SMART TOOLS FOR RECREATION PLANNING

<http://mcatlas.org/recreation/Default.aspx?ScenarioId=7359>

Case Study: Bethesda Mews

The Web Tool Scenario

Step 1: Demand

Step 2: Geo-location

RECREATION FACILITIES CALCULATOR

[Bookmark](#) [Demand Table](#) [Supply Table](#)

YOUR CALCULATOR SESSION ID: _____

PLEASE REMEMBER OR WRITE DOWN YOUR CALCULATOR SESSION ID IF YOU WISH TO RETRIEVE THE SAVED CALCULATIONS LATER.

ENTER SCENARIO ID NUMBER TO GO TO: GO CLONE SCENARIO

STEP 1 ENTER NUMBER OF HOUSING UNITS IN THE PROPOSED PROJECT (CALCULATE DEMAND POINTS)

Housing Type	Housing Type Code	Quantity	Tots	Children	Teens	Young Adults	Adults	Seniors
Single-Family Detached	SFD	29	4.35	10.15	10.15	7.83	21.17	4.08
Townhouses and Single-Family attached	TH	5	0.70	1.10	0.80	2.65	3.65	0.55
Multiple-Family, 4 stories or less	Mid-Rise	0	0.00	0.00	0.00	0.00	0.00	0.00
Multiple-Family, 5 stories or more	Hi-Rise	0	0.00	0.00	0.00	0.00	0.00	0.00
Total Housing Units and Total Demand Points:		34	5.05	11.25	10.95	10.48	24.82	4.61

SAVE
CANCEL

STEP 2 GEO-LOCATION: CLICK ON THE MAP TO CHOOSE THE PROPOSED PROJECT LOCATION

Master Plans
 Parks
 Facilities
 Trails
 Bikeways
 Parcels
 Draw Trail
Clear Trail

Locate
Legend
Basemaps

OFFSITE FACILITIES WITHIN HALF MILE RADIUS FROM PROJECT LOCATION

Quantity	Park Facility	Tots	Children	Teens	Young Adults	Adults	Seniors
1	Bikeways	0.25	1.13	1.64	1.57	3.72	0.48
1	Pocket Green	3	5	5	8	8	6
1	Softball Field	1	7	10	12	7	2
1	Soccer Field	2	15	20	25	15	2
Total Offsite Supply Points:		6.25	28.13	36.64	46.57	33.72	10.48
35% of Total Offsite Supply Poi...		2.19	9.84	12.82	16.3	11.8	3.66
Max Allowed Pts (35% of Total ...		1.77	3.94	3.83	3.67	8.69	1.61
Actual Assigned Offsite Supply ...		1.77	3.94	3.83	3.67	8.69	1.61



Case Study: Bethesda Mews

The Web Tool Scenario

Step 3: Supply

Step 4: Adequacy

STEP 3 ENTER NUMBERS OF PROPOSED RECREATION FACILITIES (CALCULATE SUPPLY POINTS)

ADD CUSTOM FACILITY

Quantity	Recreation Facility	Bonus P...	Is Pub...	Tots Pts	Children Pts	Teens Pts	Young Ad...	Adults Pts	Seniors Pts	Tots	Children	Teens	Young Adults	Adults
0	Terraced Garden Area		<input type="checkbox"/>	2	2	2	2	2	2	0	0	0	0	0
0	Stairs, Steps and Railings		<input type="checkbox"/>	0	3	4	5	5	4	0	0	0	0	0
0	Grilling Area		<input type="checkbox"/>	0	0	2	6	6	5	0	0	0	0	0
0	Performance Setting - Stage Outdoor		<input type="checkbox"/>	2	5	4	4	6	6	0	0	0	0	0
0	Bicycle Wheel Ramp		<input type="checkbox"/>	0	0	1	2	2	1	0	0	0	0	0
0	Bicycle Support Station		<input type="checkbox"/>	0	0	3	3	3	3	0	0	0	0	0
1	Pedestrian Connection - Trail System		<input type="checkbox"/>	.1xD1	.2xD2	.15xD3	.15xD6	.15xD4	.1xD5	0.51	2.25	1.64	1.57	3.72
1	Bikeways		<input type="checkbox"/>	.05xD1	.1xD2	.15xD3	.15xD6	.15xD4	.1xD5	0.25	1.13	1.64	1.57	3.72
1	Natural Area	10%	<input checked="" type="checkbox"/>	.05xD1	.05xD2	.1xD3	.1xD6	.1xD4	.05xD5	0.28	0.62	1.2	1.15	2.73
1	Ornamental Garden or Sculpture Garden		<input type="checkbox"/>	2	3	3	7	8	5	2	3	3	7	8
1	Playground (Age 2-5) [Tot Let]		<input type="checkbox"/>	9	2	2	3	3	3	9	2	2	3	3
1	Urban Plaza	10%	<input checked="" type="checkbox"/>	4	6	6	18	15	6	4.4	6.6	6.6	19.8	16.5
2	Picnic/Seating	10%	<input checked="" type="checkbox"/>	1	1	1.5	3	3	3	2.2	2.2	3.3	6.6	6.6
8	Total Supply Points:		<input type="checkbox"/>							18.64	17.80	19.38	40.09	44.27

SAVE CANCEL

STEP 4 VIEW RESULTS: TOTAL DEMAND POINTS, TOTAL SUPPLY POINTS AND ADEQUACY

Age Group	Demand	Offsite Supply	Onsite Supply	Total Supply	Supply Needed	Adequacy	Adequacy Icon
Tots (0 - 4 yrs)	5.05	1.77	18.64	20.41	0	Adequate	✓
Children (5 - 11 yrs)	11.25	3.94	17.8	21.74	0	Adequate	✓
Teens (12 - 17 yrs)	10.95	3.83	19.38	23.21	0	Adequate	✓
Young Adults (18 - 34 yr)	10.48	3.67	40.69	44.36	0	Adequate	✓
Adults (35 - 64 yrs)	24.82	8.69	44.27	52.96	0	Adequate	✓
Seniors (65+ yrs)	4.61	1.61	22.37	23.98	0	Adequate	✓

REPORT



Recreation and Sustainability

Stream and Natural Area Restoration

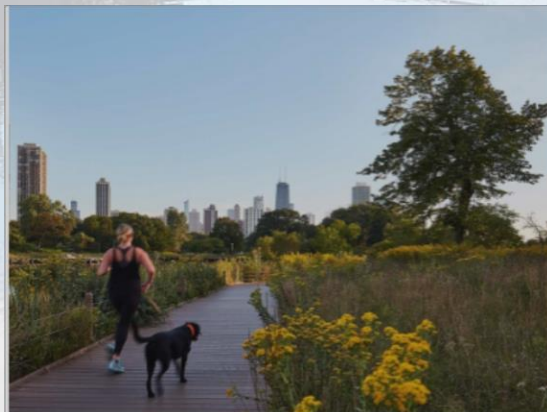
- Recreation credit for stream restoration
- Off-site or on-site

Community Gardening

- Supply credit for gardens

Stormwater Management

- Recreation and Infrastructure





Recreation Guidelines Manual

http://montgomeryplanning.org/wp-content/uploads/2017/05/Rec-Guidelines_FINAL.pdf

The Web Tool

www.mcatlas.org/recreation

Questions ?



SMART TOOLS FOR RECREATION PLANNING





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www.mcatlas.org/recreation



http://montgomeryplanning.org/wp-content/uploads/2017/05/Rec-Guidelines_FINAL.pdf



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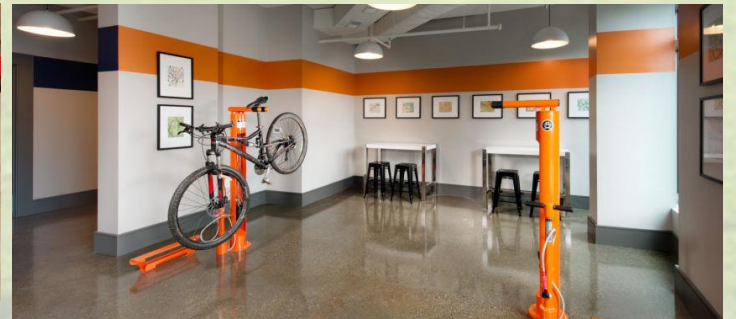


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SMART TOOLS FOR RECREATION PLANNING





Case Study: ZOM Bethesda

Urban High-Rise Living

Infill Development

- Efficient use of land: 1.84 acre tract
- 235 dwelling units
- Higher density zoning
- Bethesda Downtown Sector Plan



Indoor Amenities

- Social interaction areas
- Fitness
- Communication

Urban Amenities



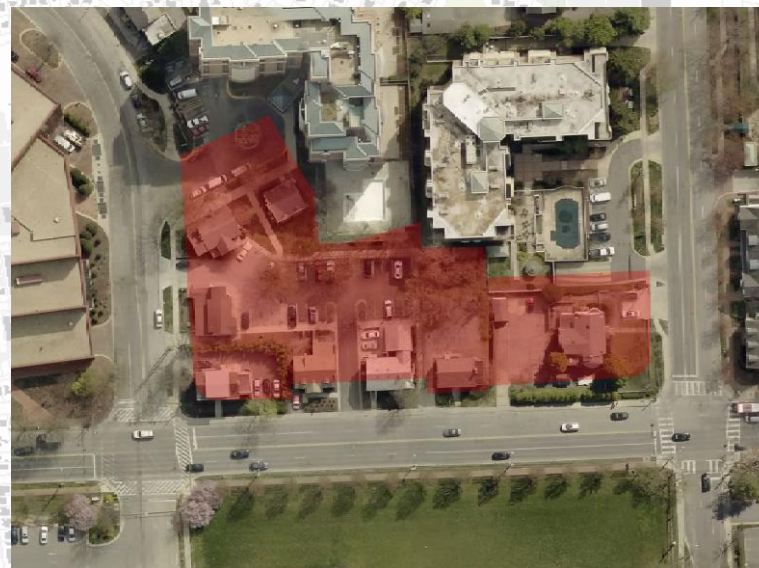


Case Study: ZOM Bethesda

Urban High-Rise Living

Neighborhood Amenities

- 4 Urban Parks
- Capitol Crescent Trail
- Elementary School & Fields
- Library





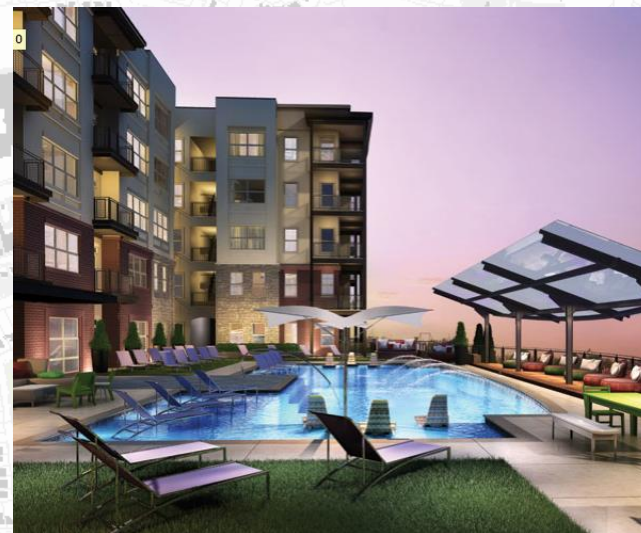
SMART TOOLS FOR RECREATION PLANNING

<http://mcatlas.org/recreation/Default.aspx?ScenarioId=7417>

Case Study: ZOM Bethesda

Urban High-Rise Living

Urban Residential Amenities - Outdoor





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<http://mcatlas.org/recreation/Default.aspx?ScenarioId=7417>

Case Study: ZOM Bethesda

Urban High-Rise Living

Urban Residential Amenities - Indoor





Recreation and County Planning

The Big Picture: Integrating Recreation and Planning Sectors

- Urban Design
- Infill Development
- Transportation
- Environmental
- Historic Preservation





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