



Training for Use of the BRAT-DO

Determinants of Physical Activity in Parks

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Objectives of Direct Observation (DO) Instrument

- ❑ Objectively measure the physical characteristics of parks that may be associated with physical activity
 - ❑ Integrate DO data into a comprehensive Geographic Information System (GIS) with data from other collection methods
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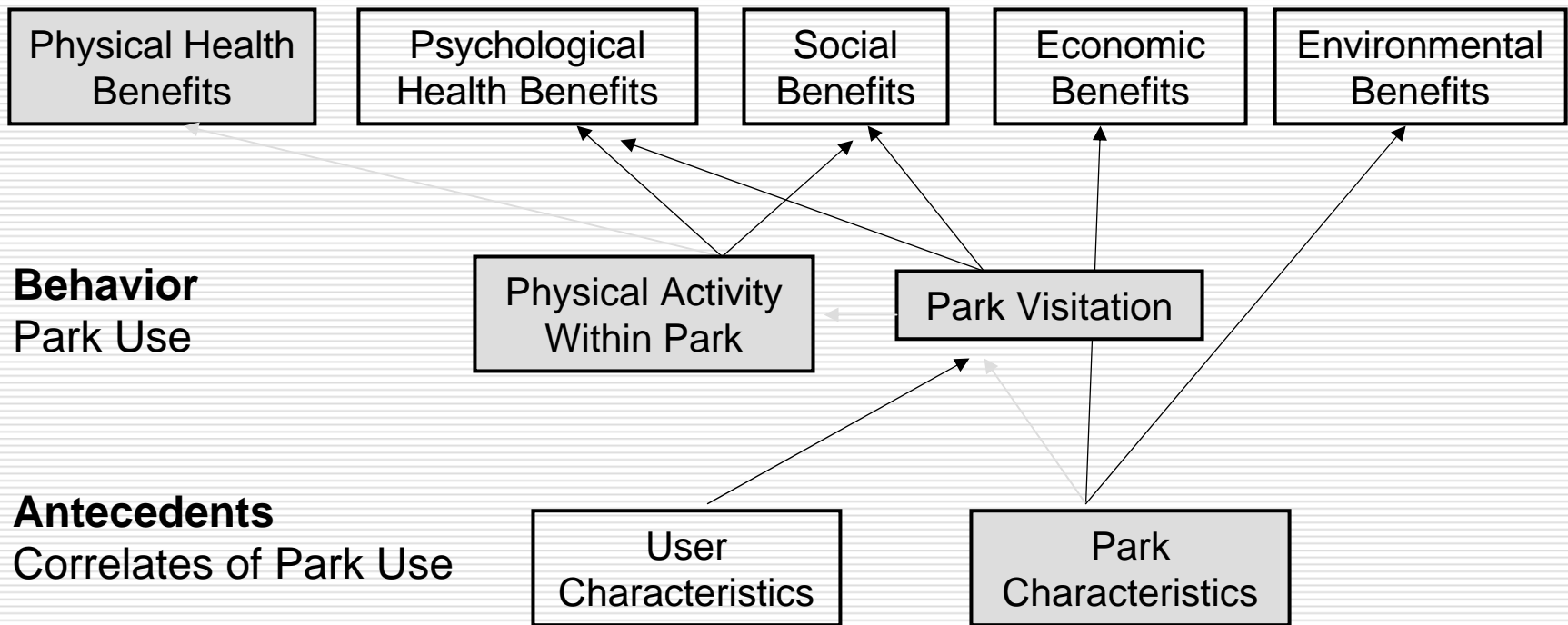
History of DO Development

- 3 rounds of testing completed
 - Inter-observer reliability
 - Validity (in comparison to a Gold Standard)
 - 4th round of testing in March 05
 - Time-dependent reliability (aka intra-observer reliability)
 - Validity (Gold Standard)
 - New shade protocol
 - More reliance on GIS mapping
-

Conceptual Model

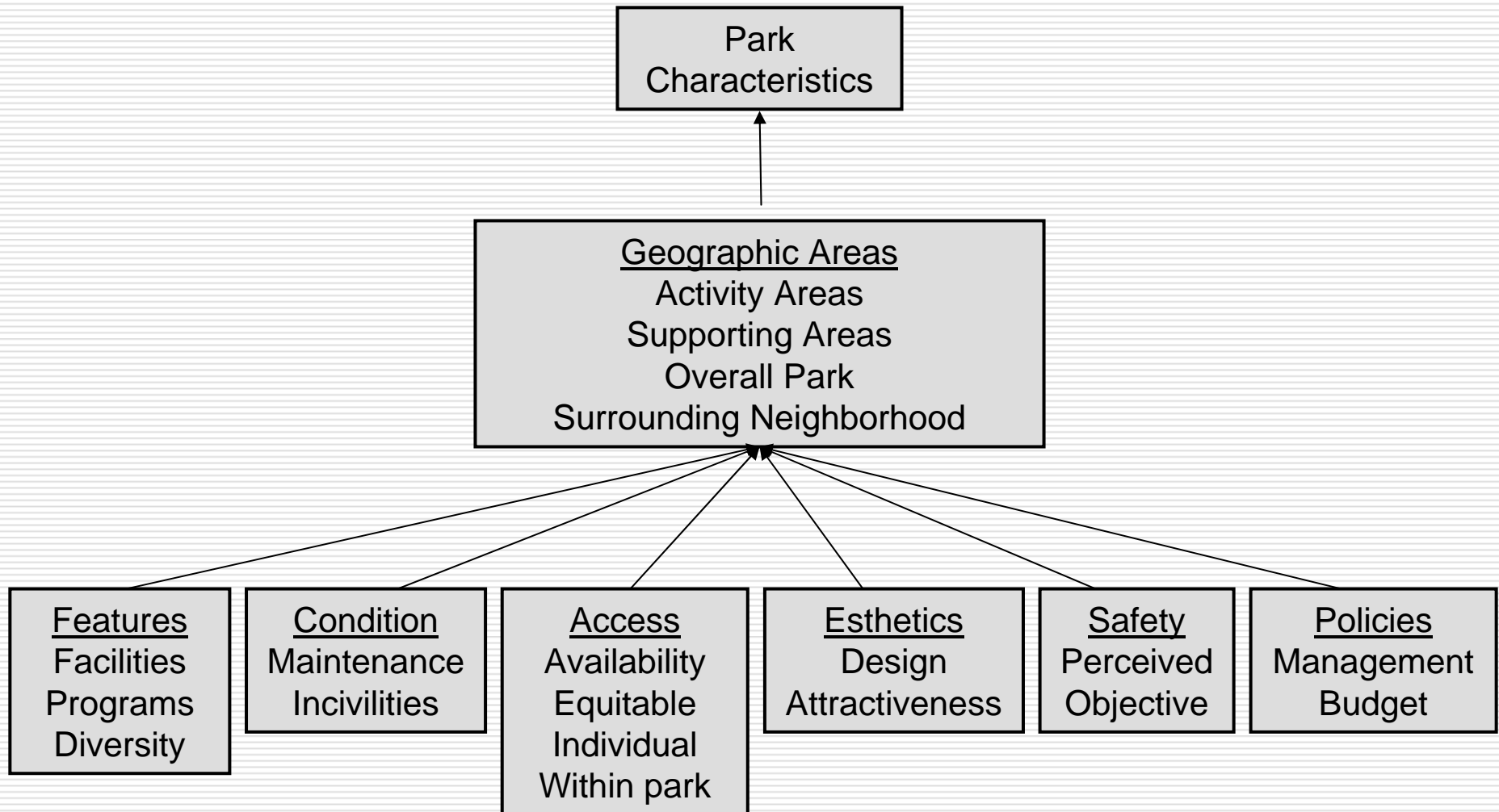
Outcomes

Benefits of Parks and Park Usage



Bedimo-Rung et al, "The Significance of Parks to Physical Activity and Public Health: A Conceptual Model," AJPM, 2005:28(2S2):159-168

Conceptual Model



Bedimo-Rung et al, "The Significance of Parks to Physical Activity and Public Health: A Conceptual Model," AJPM, 2005:28(2S2):159-168

Required Supplies for Observers

- Data collection forms
 - Maps of parks
 - Pens (pencils will NOT work on scannable forms)
 - Ruler, tape measure
 - ID and letter of authorization
 - Cell phone
 - Comfortable walking shoes
 - Water and sun protection
-

Sun Protection*

- Dermatologists recommend:
 - SPF 15 or higher (SPF 30 or higher for those with fair skin or history of skin cancer)
 - The higher the better even though the added protection is small
- “Complete” sunscreen blocks UVA radiation as well. Look for:
 - Titanium dioxide
 - Zinc oxide
 - Mexoryl (not yet FDA approved)
 - Tinosorb (not yet FDA approved)
 - Neutrogena “Ultra Sheer” (SPF 55) (has ingredient similar to Mexoryl)

Sun Protection (cont)

- Apply 15-30 minutes before going out
 - Reapply every 2 hours
 - Use enough (1 oz, amount in a shot glass)
 - Dark-colored clothing
 - Sun Precautions (Solumbra) clothing line
 - SunGuard (product to wash clothes in, lasts ~20 washings)
 - Sunglasses
 - Large-brimmed hat
-

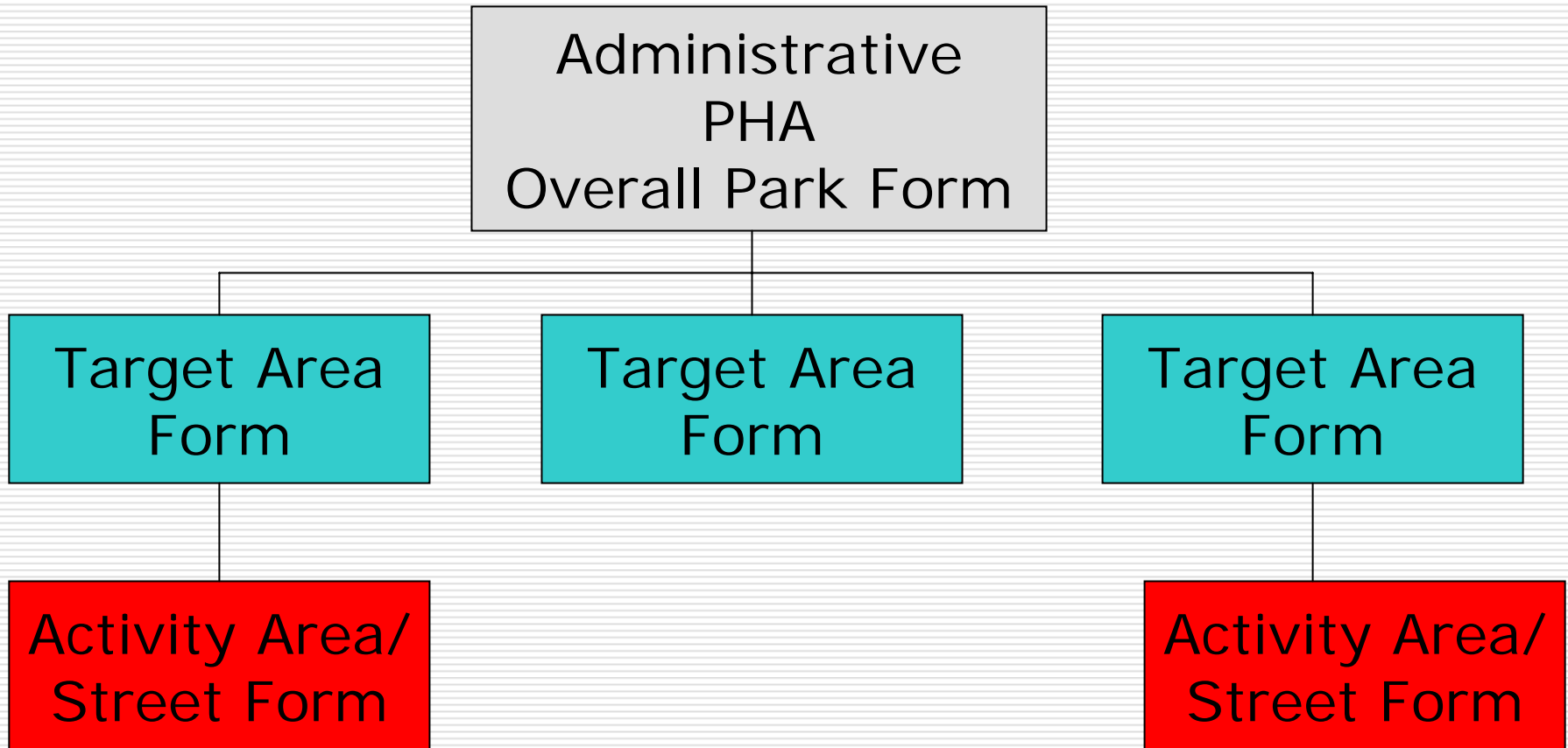
Required Supplies: Data Collection Forms

- Overall Administrative Form
 - PHA Form
 - Overall Park Form
 - Target Area (TA) Forms
 - 1 for each TA
 - Street & Activity Area Forms
-
- 1 per park
- several per park
- varies per TA
-

Target Areas

- ❑ A way to geographically divide large parks to facilitate observation
 - ❑ All the area in a park must be contained within one or several Target Areas
 - ❑ Small parks may only have 1 Target Area
 - ❑ Only 1 Activity Area per Target Area
 - ❑ No real analytical meaning
 - Data from target areas will be summed to get data for whole park and activity areas
-

Example of Data Collection Forms for A Park



Overall Park Form

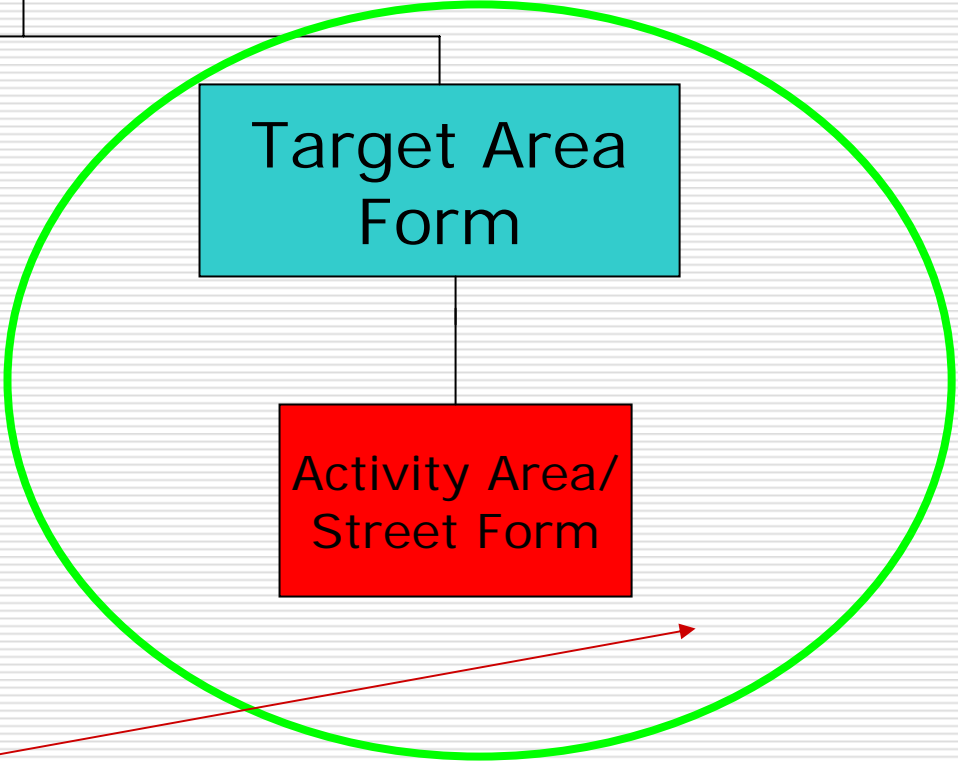
Target Area Form

Target Area Form

Activity Area/
Street Form

Activity Area/
Street Form

- Possible Forms:
Street
Court
Green Space
Path
Playground
Sports Field
SwimmingPool



↑
**Mark time it took you
to complete each
group of TA & AA
forms**

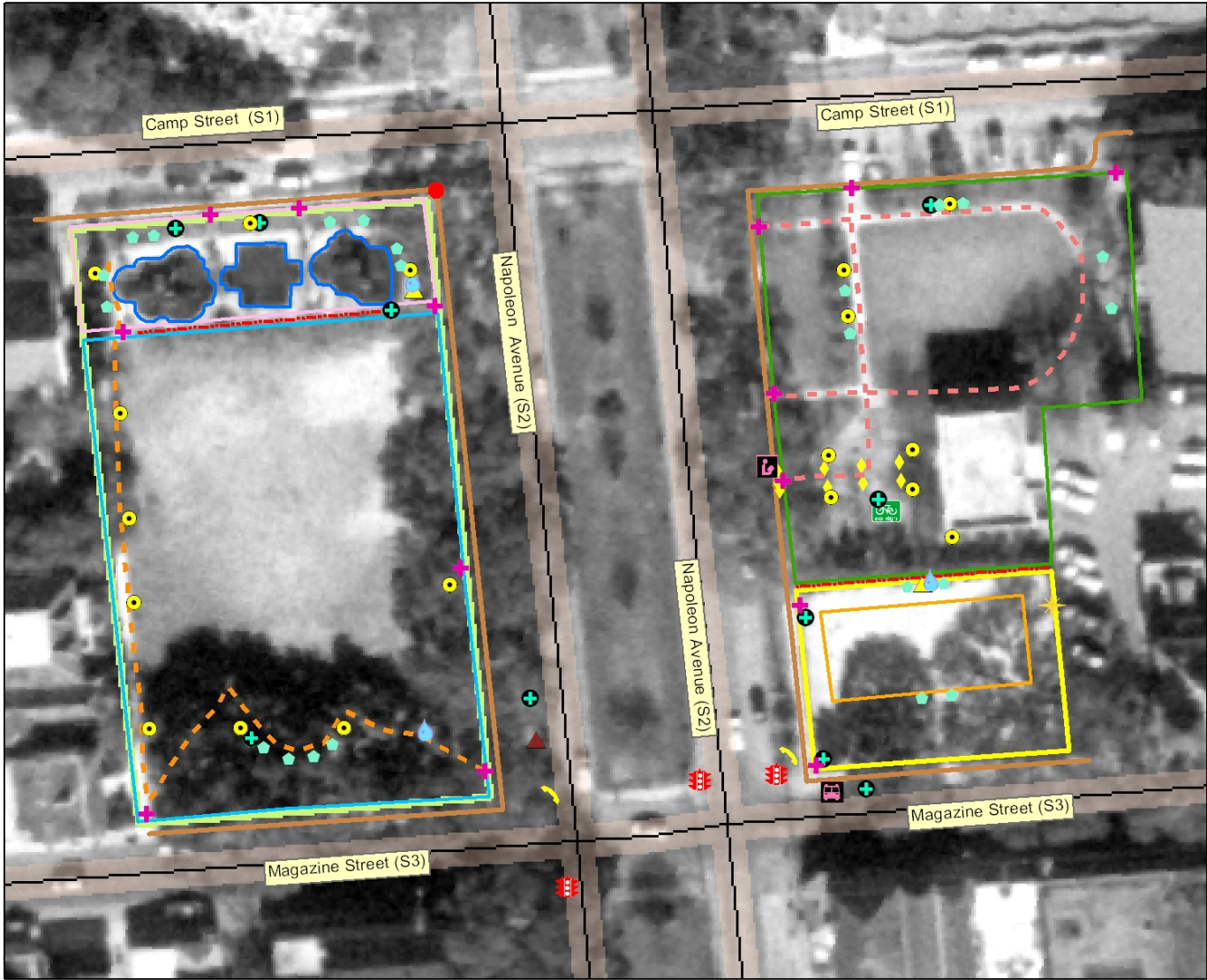
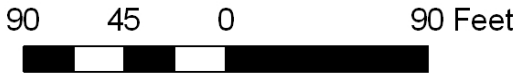
Required Supplies: Maps

Laurence Square

- TA1 and PG1
- TA2 and GS1
- TA3 and GS2
- TA4
- P1
- P2
- C1
- Play structures

General Playground Features

- + Trash Can
- + Drinking fountain
- Lights
- + Park access
- + Benches
- Sidewalks
- ★ Basketball court light
- 🚲 Bike rack
- ▲ Covered bus stop
- 🚏 Uncovered bus stop
- ◆ Library foot lights
- 📖 Library book drop
- ▲ Portable trashcans
- Stop sign
- 📞 Telephone
- 🚦 Traffic light
- Fence



Review of Direct Observation Tool and Procedure

Source: BRAT-DO Reference Manual

General Guidelines

- ❑ Keep the “big picture” (conceptual framework) in mind when responding
 - ❑ Avoid double-counting features
 - ❑ Try to get an overall impression of an area or group of features
 - ❑ The more the functionality of a feature is limited, the more this should be reflected in its score
 - ❑ Use the BRAT-DO Reference Manual as a reference in the field
-

Overall Park



Overall Park Form

- Questions regarding the park as a whole
 - May be easier to complete AFTER other forms have been done; however, you may note the presence of signs or specialty areas as you come upon them.
-

Can the entire park be locked?

- ❑ Mark “no” if the park is clearly not lockable (i.e. if there is no fence or gate)
- ❑ An actual working lock is not necessary
- ❑ We want to know whether access **COULD** be restricted.
- ❑ Applies to Target Areas and Activity Areas as well
- ❑ Example of lockable park or lockable Target Area



Signs, signs, everywhere...



Target Area

TA Instructions

- Must record start & stop times! (Count the time it takes you to do the TA form AND its associated Activity Area forms.)
 - Before starting, walk the entire Target Area once without recording anything.
 - Walk it a second time to complete the observation and fill out the form. Look everywhere and assess ALL components of the TA.
 - If you are not able to get inside an area, do the observation as best you can by walking around the outside. Mark "no" to question "Able to access TA?"
-

Condition of Landscaping

- Base on type of landscaping
 - May consider:
 - length of grass
 - drainage
 - holes
 - ant hills
 - etc.
-

Litter and Trash

□ Litter

- Small trash
- Not in a trash can
- Can be picked up by an individual
- Rate without looking in trash cans

□ Trash

- Large items
 - Takes an organized effort to dispose of it
 - Rate without looking in trash cans
-

Examples of Litter and Trash



Risky Litter

- Anything that indicates risky behavior took place, EXCEPT cigarette butts (which are counted as “litter”)
 - alcohol cans/bottles
 - condoms/condom wrappers
 - needles/syringes
 - small Ziploc bags
 - May be in a trash can or not
-

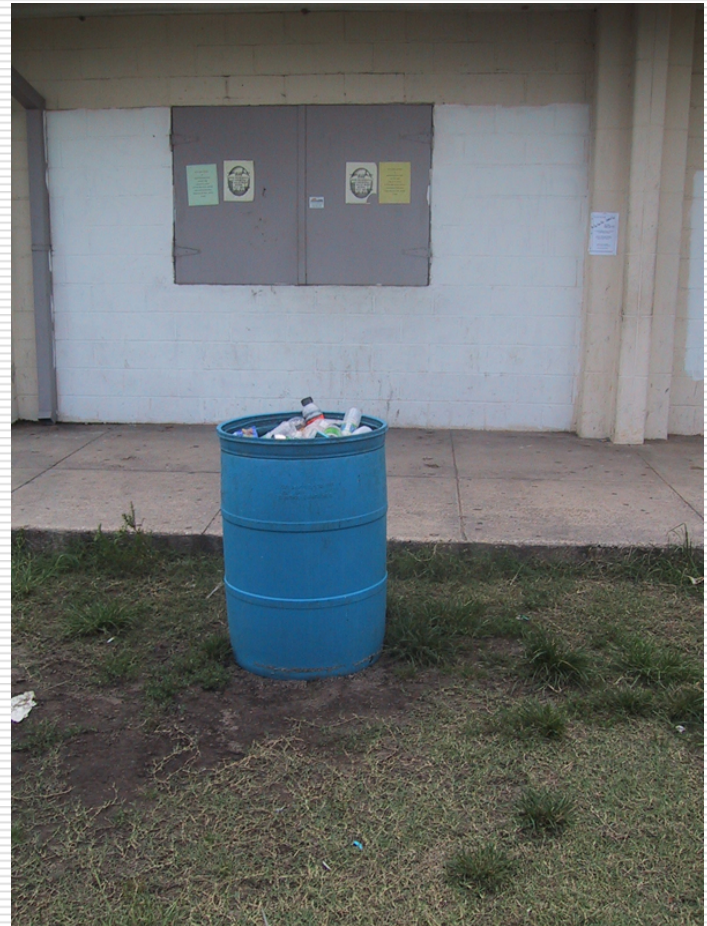
Risky Trash



Trash Cans



“Overflowing” trash
can



Trash can is full but
NOT overflowing

Graffiti



Any unauthorized writing or drawing on a public surface.

Benches



Do not count benches that are part of picnic tables.



Decide whether bench belongs to TA or overlapping Activity Area

Bench Condition



Bench condition: Deduct points for chipped paint, warped wood, missing pieces

Bike Racks



Functionality is defined as observer being willing to lock his/her own bike to the rack.

Shelters



Notice what is under the shelters.

Restrooms

- ❑ Can include port-o-lets
 - ❑ Gender-labeled means that the outer door to the restroom is marked “Men” or “Women”
 - ❑ If a restroom says “Men/Women” (or similar) consider it gender-labeled
 - ❑ In order for a restroom to be “unlocked” you must be able to get inside
 - ❑ Only go in your gender’s restroom!
-

Restrooms – Gender-Labeling



Restrooms

Functionality

- Do the toilets flush?
- Do the sinks work?

Condition

- Is anything broken?
 - Is anything missing?
 - Is anything worn away or chipped?
-

Restrooms – Condition & Cleanliness



Concession Stand

- ❑ Any area within the TA that sells food or drink or rents equipment
 - ❑ Look for any evidence (such as signs) that this activity occurs.
-

Concession Stand



Drinking Fountains



Water coming out in
adequate stream for drinking

Picnic Tables

- Look at all the picnic tables in the TA and come up with an overall score.
 - Cleanliness
 - Look for food crumbs, stickiness, bugs, or other non-trash/unclean items
 - Bear in mind that the tables are intended for outdoor use. They do not need to be in pristine condition to score a "5"
 - Trash on the picnic tables should be counted under "litter"
 - Condition
 - Deduct more points if functionality is compromised
-

Various Conditions of Picnic Tables



Water Features

- A natural large body of water that borders the TA and is in prominent view may be included here
 - Ponds, lagoons, lakes, rivers, streams, creeks, falls, decorative fountains
-

Water Features



Pond/Lagoon with a fountain (1)



Pond/Lagoon without a fountain (1)

Water Features



Built fountain (6)

Art and Monuments

- Any sculptures, decorative items, flags/flagpoles
 - NOT decorative fountains (counted under Water Features)
-

Art and Monuments



Art and Monuments



Parking Area

- ❑ Any area set off for parking of vehicles
 - ❑ Does not need to have painted lines or cement surface
 - ❑ “Lighting source for parking area” must specifically illuminate the parking lot.
-

Park Staff

- “Uniform” can be interpreted liberally, e.g. badge, cap, t-shirt, etc.
-

Park Staff



Activity Areas

1. Street (not technically an AA, but has own form)
2. Court
3. Green Space
4. Path
5. Playground
6. Sports Field
7. Swimming Pool

Street

Street

- ❑ A road that carries public vehicular traffic
 - ❑ Each street requires a separate Street form
 - ❑ "Borders the park": immediately touching the park edge, must be crossed before entering park
 - ❑ "Crosses the park": regular city street that carries traffic that happens to cut across the park
 - ❑ "Within the park": carries only park traffic
-

Street

- # of lanes:
 - lane only goes in 1 direction
 - count lanes in both directions
 - lanes not always indicated with painted lines
 - check street signs and actual traffic
 - do not include turning lanes or medians (neutral grounds)



Example of a median or “neutral ground”

Streets – One Lane



Do not count parked cars as a lane

Use presence of moving traffic to help you decide # of lanes



Street – 2 lanes



Note sign indicating two-way traffic

Two-way street, no painted lines



Streets – Neutral Ground/Median



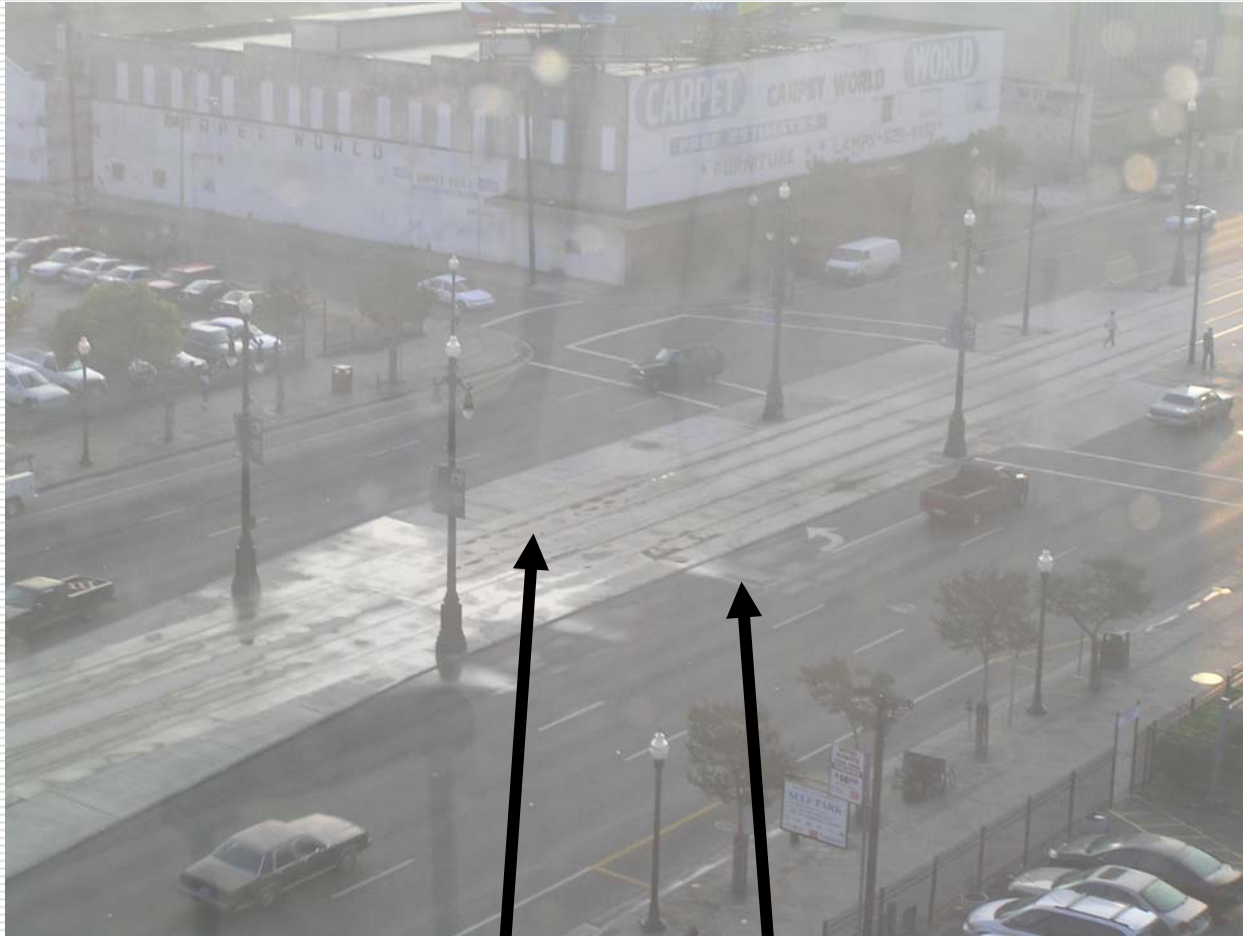
4 lanes, 2 on each side
of neutral ground (2 lanes not in
photo)

**Neutral ground may be grass
or cement**



6 lanes, 3 on each side
of neutral ground (3 lanes not in
photo)

Street – 8 Lanes



Do count streetcar lane. Don't count turning lane.

Street – Traffic Signals



Example of a “Crosswalk” (1)

Example of a “Flashing Light” (2)



Street – Traffic Signals



Example of a “Stop Sign” (3)

Example of a “Stop Light” (4)



Street - Sidewalks



Both sidewalks in relatively good condition.
No trip hazards or overgrowth.

Street - Sidewalks



Deduct points for sidewalk being overgrown.



Deduct points for uneven surface, but give points for smooth surface given presence of tree roots.

Court

Court Structures



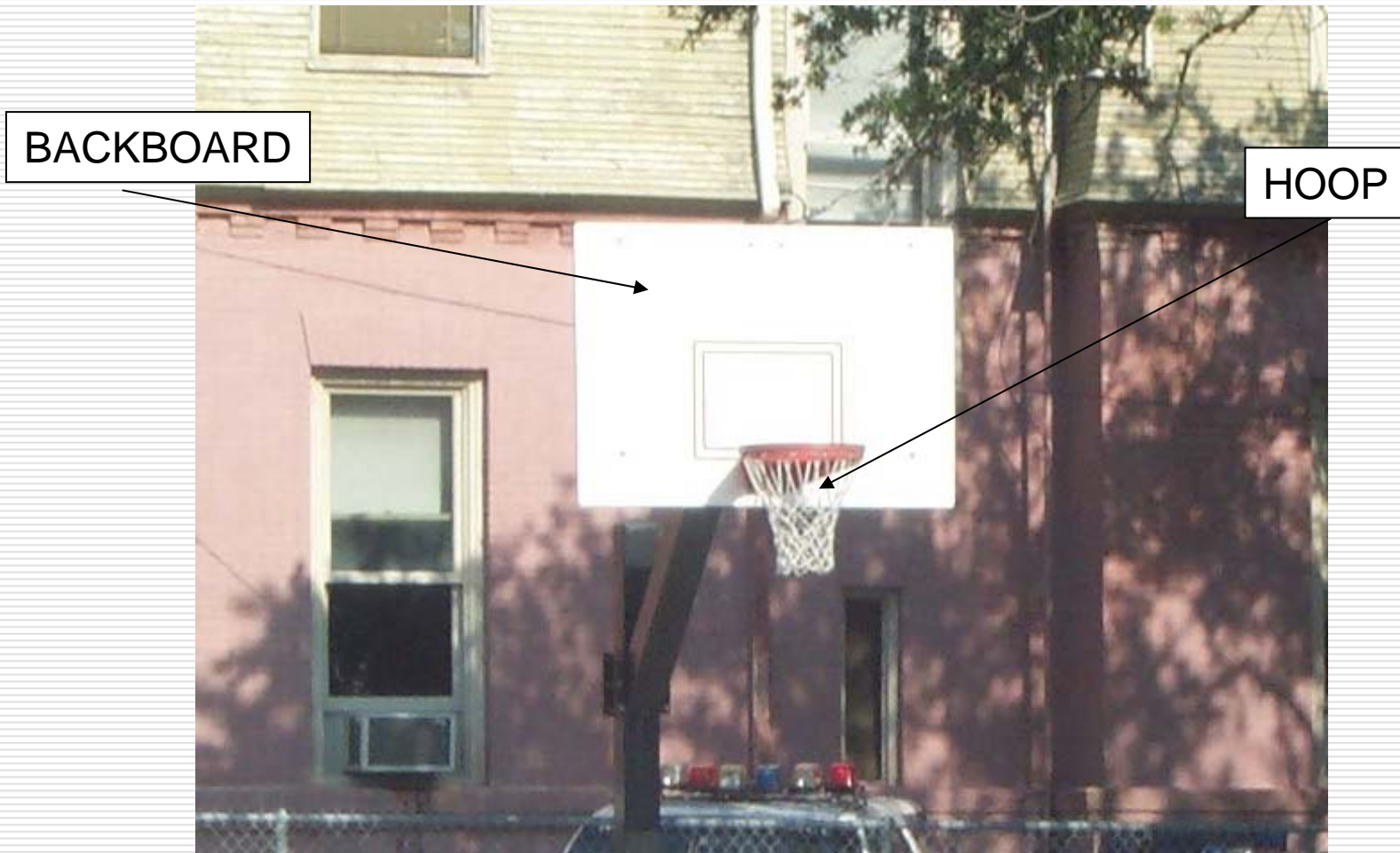
“Tennis Court Nets” (1) and “Tennis Court Standards” (2)

Court Structures



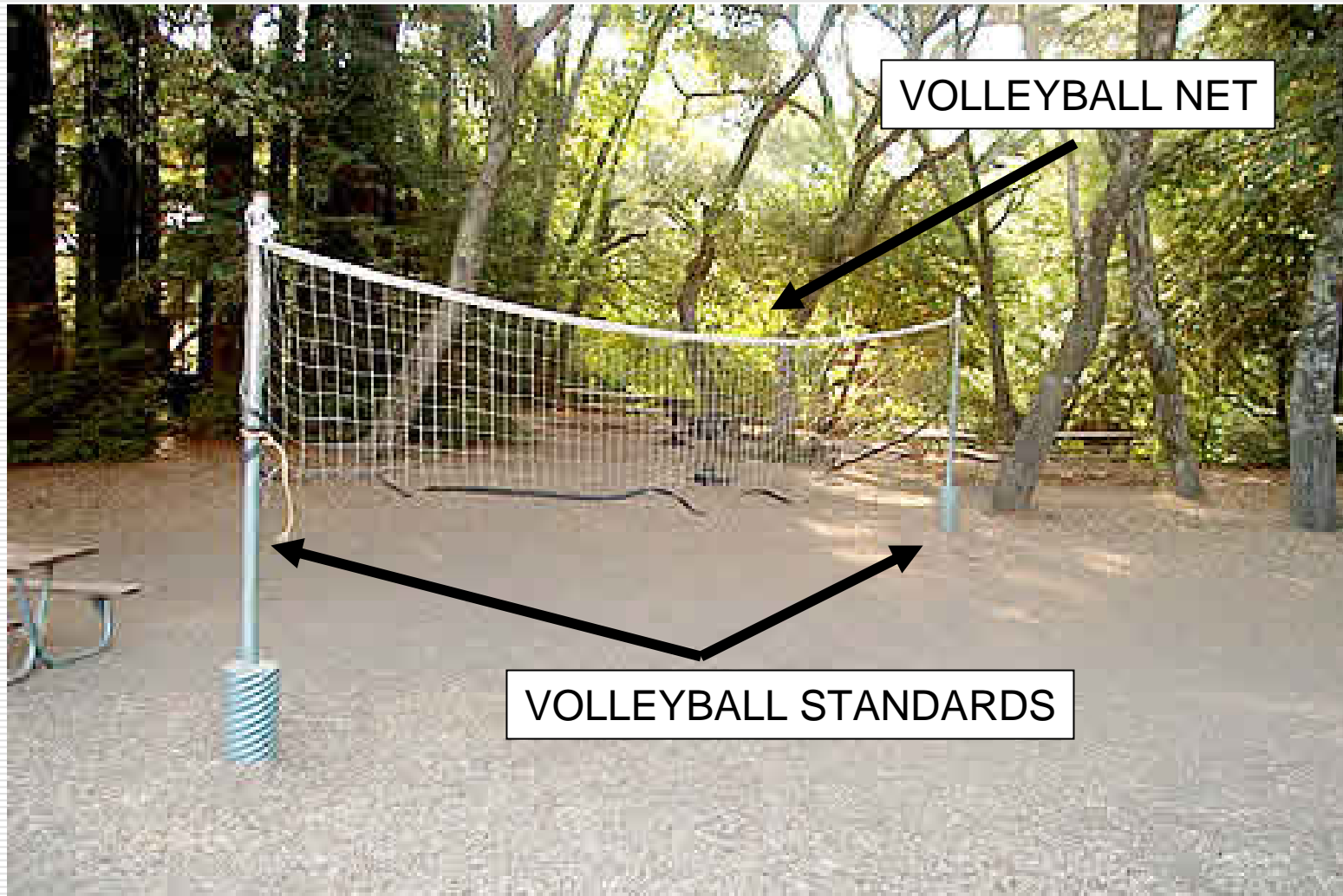
"Tennis Practice Wall" (3)

Court Structures



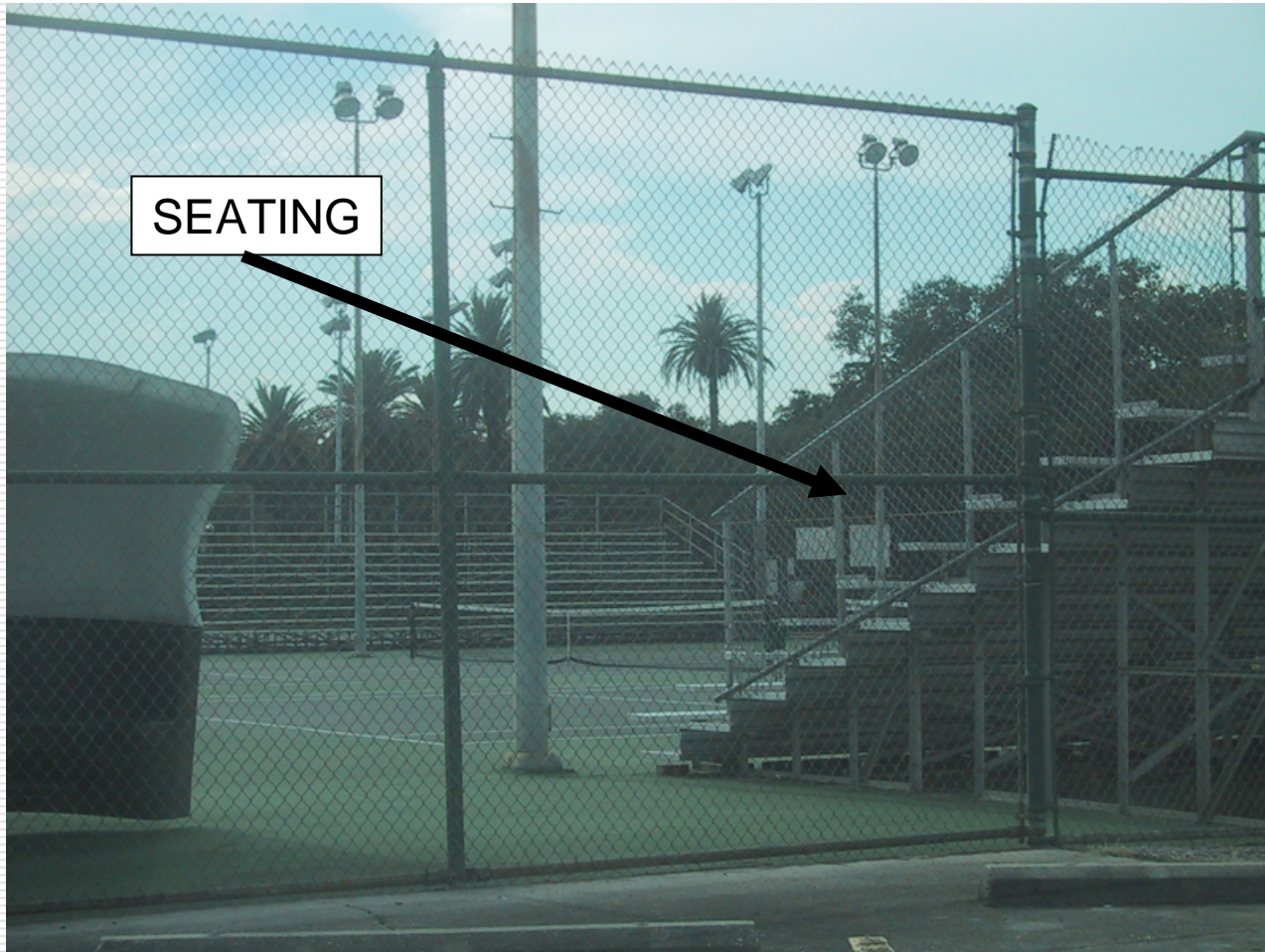
“Basketball Backboard” (4) and “Basketball Hoop” (5)

Court Structures



“Volleyball Net” (6) and “Volleyball Standards” (7)

Court Structures



“Seating” (8). Note that plain benches should NOT be counted as seating. Benches are assessed in the Target Area form.

Intended Use of Court

Tennis Court

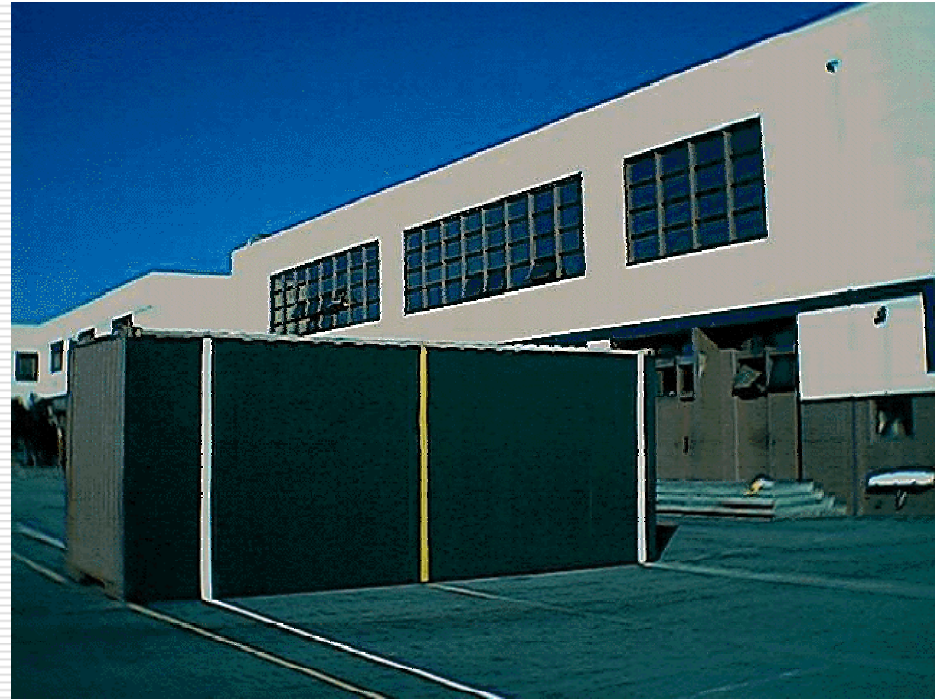


Basketball Court



Volleyball Court

Intended Use of Court



"Handball Court" (4)

How many games can be played?

- Basketball, tennis & volleyball
 - 1 net = 1 game

Court Surface Condition



Deduct points for cracks



Deduct points for drainage



Deduct points for scuff marks

Court – Painted Markings



Deduct points for faded lines



Give points for lines being clearly visible

Court – Broken/Missing Structures



Hoop missing. Deduct more points for lack of usability.

Light Source

- Typical lights for courts or fields



Green Space

Examples of Green Space

- ❑ Free form
- ❑ May be any shape or size
- ❑ No obvious intended organized sports use
- ❑ May have trees
- ❑ Both examples have "Mostly Grass" (1) surfaces



Condition of Green Space Surface



- Consider surface upkeep such as:
 - length of grass
 - drainage

Path

Measure the width of the Path



Use a measuring tape to measure width.

Surface of Path

- Examples of “Smooth” surfaces (1)
- Note that a running track is a type of path



Surface of Path

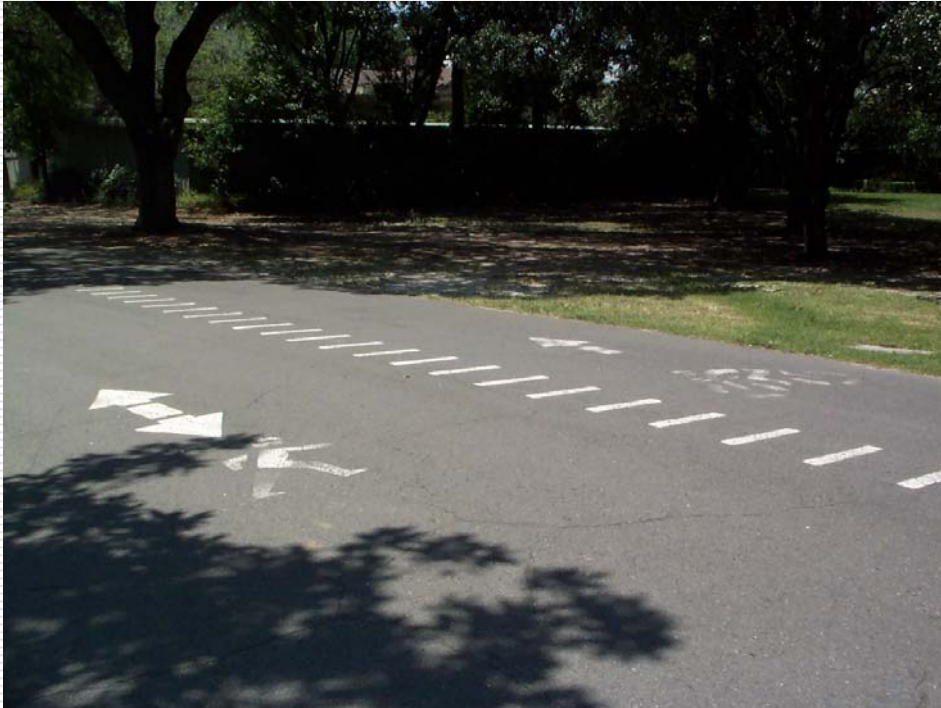
"Dirt" surface (3)



"Particulate" surface (2)



Path divided for different uses



Look for painted markings on the path or signs.

Path intersecting with traffic



Playground

Type of Playground Equipment



□ Swing Sets (1)



Type of Playground Equipment

- "Slides" (2)
- Note that they can be either:
 - free-standing
 - attached to another play apparatus (circle "2" and "3")



Type of Playground Equipment



- "Climbing Apparatus" (3)



Type of Playground Equipment



"Merry-Go-Rounds" (4) and "See-Saws" (5)



Type of Playground Equipment



"Spring Rockers" (6)

Type of Playground Equipment



"Marked Blacktop Games" (7)

Type of Playground Surfacing



Assess only the surface that is directly under the play equipment

"Loose Fill" (3)

Type of Playground Surfacing



"Rubber Tiles" (4)



"Unitary Synthetic Surface"
(4)

Note that both these surfaces feel spongy and have some "give" when you stand on them.

Surface Depth



Insert a ruler into an average-looking spot and measure depth.

Surface Condition

- Look for
 - consistent depth
 - wear and tear
 - presence of roots, rocks, other environmental hazards
-

Deterioration of Playground Equipment



Deduct points for corrosion. Also look for things like chipped paint, rusted pieces, exposed hard surfaces.

Broken/Missing Play Equipment



Deduct points for missing swing. Also look for things such as missing or broken play components, handholds, guardrails, swing seats, benches, etc.

Measuring height of play equipment



Check the highest point on which a child could stand, and use tape measure. If height is exactly 6 feet, mark "No" (0).

Sports Field

Condition of Green Space Surface



- Consider surface upkeep such as:
 - length of grass
 - drainage

Sports Field Structures



“Football Goal Posts” (1)



“Soccer Goal Posts” (2)
(net not required)

Note that goal posts at each end of the field are required (if one is missing, assess this under broken/missing equipment).

Sports Field Structures



"Fence Around Home Plate"
(3)



DUGOUT

SEATING

"Dugouts" (4) and
"Seating" (5)

Sports Field Structures



"Batting Cage" (6)



"Scoreboard" (7)

Intended Use of Sports Field

- Answer as best you can
 - Use structures present as clues
 - If more than one use, mark "Multi-Purpose" (4)
 - If you can't tell, mark "Cannot Tell" (5)
-

Sports Field Condition

- Walk the field
 - Consider:
 - evenness of surface
 - length of grass
 - bare patches
 - holes, ditches
 - roots, large rocks
 - poor drainage
-

Sports Field Condition



Deduct points for obstacle in field (this may be more acceptable in Green Space)



Deduct points for mud/drainage



Deduct points for length of grass, uneven surface



Give points for length of grass, even surface, straight lines

Swimming Pool

DO NOT FORGET TO COMPLETE THIS SECTION

- Do not forget to enter the time you finished completing the TA and AA forms
- Please complete the table with # of forms used