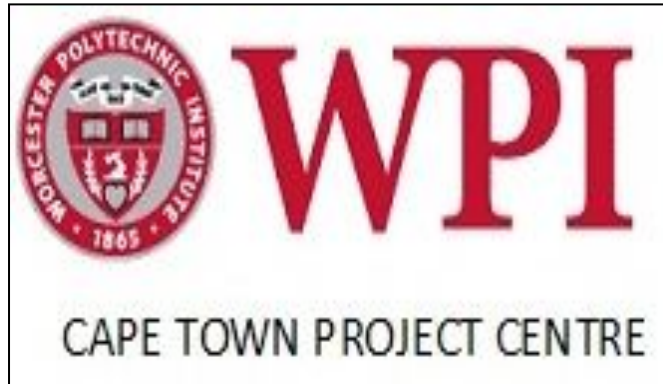


Community Recreational Area Catalog

A Cape Town Project Center Publication 2014



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About the WPI CTPC Community Resources Series

Community Resources publications are designed to assist residents, community-based and non-profit organizations, local government, students, educators and others working toward sustainable community development in disadvantaged communities in South Africa and elsewhere.

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The Cape Town Project Centre (CTPC) is part of the Worcester Polytechnic Institute (WPI) Global Projects Program offering WPI students project opportunities in two dozen centers around the world. Each year, about 26 CTPC third-year undergraduate students from our US university work closely in small groups with local Cape Town organizations and communities on issues posed by our local partners. This report is one of a number of project outcomes produced during two months of fieldwork in Cape Town. See the CTPC website for more information: <http://wp.wpi.edu/capetown>.

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Introduction

This catalog was compiled by the 2014 WPI Cape Town Project Center Flamingo Crescent Team. It includes a detailed material list and construction guide for each playground component that was built in the Flamingo Crescent Recreation Area in December of 2014.

The second section of the catalog contains several structures that were considered in the design process of the play area. These structures incorporate similar concepts and materials as the ones found in the first section.

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Section 1: Flamingo Recreational Area



Tire Obstacle Course



Materials List:

- **38** Tires (60-65cm)
- **1** Tractor Tire
- **10** Expansion Bolts (5x55mm)
- **2** Expansion Bolts (2x65mm)
- **20** Cup Square Bolts ((8x65mm)
- **50** Bolts (M8x65mm)
- **90** Nuts (8M-10B)
- Oil Based Paint

Construction Details:

- Layout tires in desired design
- Mark tires where they will be connected
- Drill holes through the marked areas
- Insert bolt through holes to connect the tires and fasten with bolts
- Continue steps above until all tires are connected to each other
- Underneath a few of the bottom exterior tires, make marks on the ground
- Drill holes through the ground
- Insert expansion bolt
- Hammer bolt in
- Fasten through tire
- Paint all tires

Tire Bench



Materials List:

- **4** Tires (60-65cm)
- **1** Expansion Bolts (2x65mm)
- **3** Wood Beams (38x114mm)
- **12** Bolts (M8x65mm)
- **12** Nuts (8M-10B)
- Oil Based Paint

Construction Details:

- Stack two tires on top of each other
- Mark three spots where tires meet
- Drill holes through these marks
- Insert a bolt through the holes to connect tires and fasten with nuts
- Repeat above steps
- Lay three beams across the tops of tires
- Drill through each end of wood where they meet the tire
- Connect using nuts and bolts
- Paint all tires and wood

Tire Tables



Materials List:

- **4** Tires (60-65cm)
- **2** Wood Wire Spool Ends
- **12** Bolts (M8x65mm)
- **12** Nuts (8M-10B)
- **6** Nails
- Oil Based Paint

Construction Details:

- Stack two tires on top of each other
- Mark three spots where tires meet
- Drill holes through these marks
- Insert a bolt through the holes to connect tires and fasten with nuts
- Repeat above steps
- Place a wire spool end on top of each tire structure
- Nail spools into 3 location on each tire to connect
- Paint tires and wood

Tree Stump Seats



Construction Details:

- Paint tops of the stumps various colors
- Do multiple coats
- Dig 500cm into the ground
- Place stump into hole and pack the excess dirt around it

Materials List:

- Tree Stumps (varying sizes)
- Oil Based Paint

Wood Balance Beam



Construction Details:

- Cut gumpole into .3m sections
- Cut these in half
- Place flat end on ground 6m apart
- Place wood beam on top of gumpole pieces at either end
- Nail together
- Paint wood

Materials List:

- 1 Gumpole
- 1 Wood Beam (38mmx114mmx6m)
- 6 Nails
- Oil Based Paint

Hopscotch



Construction Details:

- Measure out 50cmx50cm squares in the shape of a hopscotch
- Paint the outlines of the boxes
- Paint the numbers inside

Materials List:

- Oil Based Paint

4 Square



Construction Details:

- Measure a 3m x 3m square
- Section off into 4 equal square sections
- Paint borders
- Paint "A,B,C,D" in each square

Materials List:

- Oil Based Paint

Activity Circuit



Construction Details:

- Paint a varying series of shapes
- Have them connect to each other
- Each shape section represent a different activity (i.e. run, skip, jump)

Materials List:

- Oil Based Paint

Mural



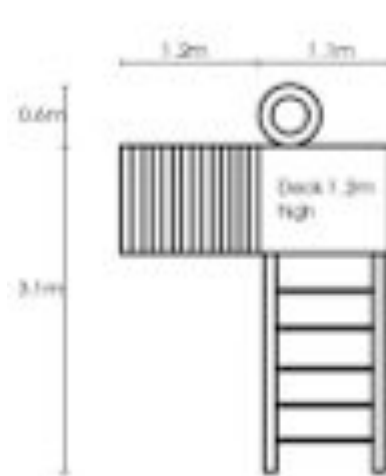
Construction Details:

- Design a mural for the allotted space
- Paint a base coat of white
- Paint design
- Optional: hold an activity to get community members involved such as kids using their handprints for tree leaves

Materials List:

- Oil Based Paint

Play Structure



Special 9



Construction Details:

- Purchased from PlayVentures for R6150

Trees



Construction Details:

- Donated by the City of Cape Town Parks Department
- NOTE: Water trees with around 20L of water each day for first month

Section 2: Proposed Structures



Wood Balancing Course



Materials List:

- Gumpoles
- Oil Based Paint

Sand Table



Credit: www.playgroundideas.org

Materials List:

- **6 Tires**
- Sand
- Oil Based Paint

Tire Swing



Materials List:

- Tires
- Rope or Chains
- Oil Based Paint

Tire Swing Set



Credit: www.playgroundideas.org

Materials List:

- Tires
- Rope
- Wooden Frame

Tire Gardens



Materials List:

- Tires
- Soil
- Rocks
- Plants

Tire Seating



Materials List:

- Tires
- Wood
- Nails

Drums



Materials List:

- Wood
- 5L Canister
- Nuts & Bolts

Tire Dome

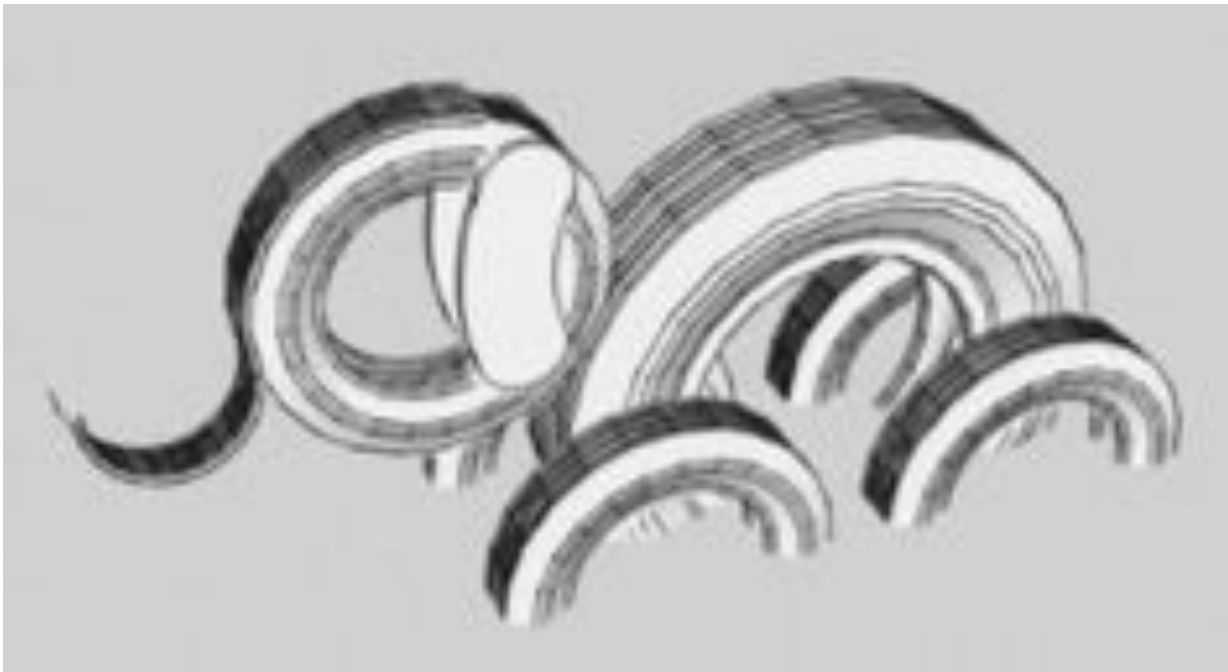


Credit: www.playgroundideas.org

Materials List:

- **20** Tires
- **60** Bolts w/ washers and nuts
- Oil Based Paint

Tire Elephant

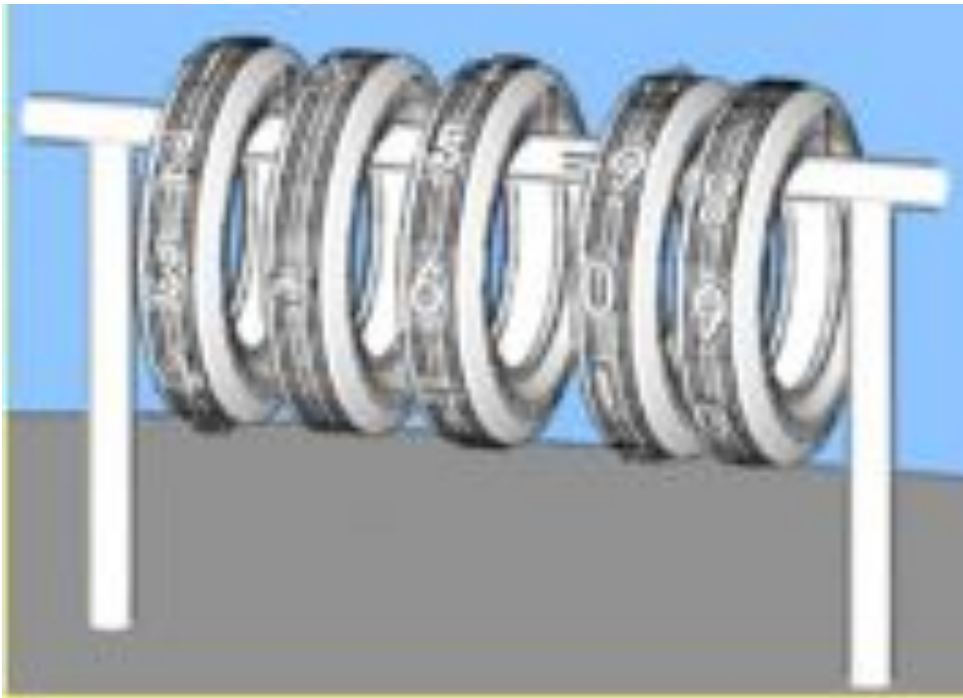


Credit: www.playgroundideas.org

Materials List:

- 5 Car Tires
- 2 Truck Tires
- 8 Nuts and Bolts
- Oil Based Paint

Tire Calculator

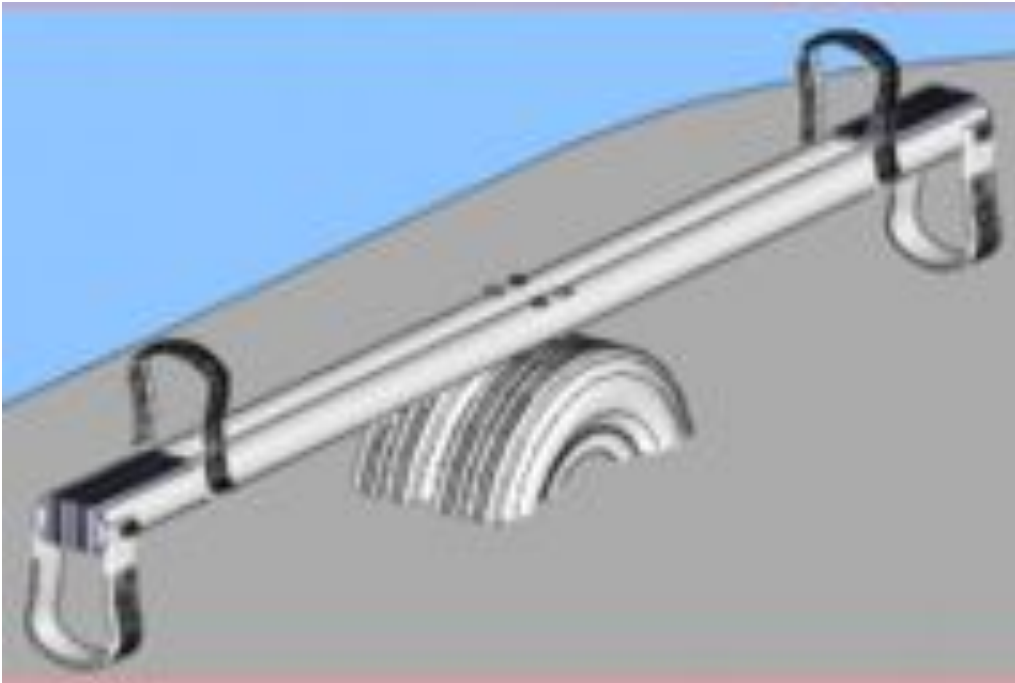


Credit: www.playgroundideas.org

Materials List:

- **5** Large Truck Tires
- **9** Large Nuts and Bolts
- **3** Logs
- Oil Based Paint

Seesaw



Credit: www.playgroundideas.org

Materials List:

- **2** Wood Timber
- **1** Motorcycle Tire
- **2** Truck Tires
- **2** Cart Tires
- Oil Based Paint

Additional Documents



Playground BOQ

Flamingo Crescent Playground BOQ					
Section	Material	Quantity	Cost/Unit	Actual Cost (Rand)	Notes
Paint	Mastercoat - White 5L	3	750		750 Optimum Hardware
	Tint, Blue 50ml	1	16.5		17 Optimum Hardware
	Tint, Green 50ml	1	16.5		17 Optimum Hardware
	Tint, Red 50ml	1	16.5		17 Optimum Hardware
	Tint, Yellow 50ml	1	16.5		17 Optimum Hardware
	Tint, Orange 50ml	2	11		22 Buildit
	Tint, Green 50ml	1	11		11 Buildit
	Tint, Red 50ml	2	11		22 Buildit
	Tint, Yellow 50ml	2	11		22 Buildit
	Tint, Magenta 50 ml	1	11		11 Buildit
	Brush, 50mm	1	15		15 Optimum Hardware
	Brush, 100mm	3	34.5		74 Optimum Hardware
	(insert new rows above here)				
Paint Subtotal				993	
Tire Structure	Masonry Bit 10mm	1	15		15 Buildit
	Masonry Bit 12mm	1	32.5		33 Optimum Hardware
	Expansion Bolts 5x55 10pk	1	35		35 Buildit
	Expansion Bolts 65x2A 2pk	1	27.5		Optimum Hardware
	Bolts 8x65mm Cup Square	20	2.95		59 Buildit
	Bolts M8x65	50	2.5		125 Optimum Hardware
	Nuts 8M-108 10pk	2	8.5		17 Optimum Hardware
	Nuts 8M-508 50pk	1	27.5		28 Optimum Hardware
	Nuts 20pk	1	0.5		1 Optimum Hardware
	Gloss White 3L (Oil Paint)	1	50		50 Buildit, discounted
	Tires	39	0		0 Arrow Tyres
(insert new rows above here)					
Tire Structure Subtotal				362	
Playstructure	Special 9	1	4800.00		4800 Playventures
	Slide	1	1350.00		1350 Playventures
(insert new rows above here)					
Play Structure Subtotal				6150	
Scenery	Trees	2	0		0 City Donation
	Stumps	8	0		0 City Donation
	Tires	8	0		0 Arrow Tyres, for seating
	Wood 38x114mm	1	0		0 Crecie Extra
(insert new rows above here)					
Scenery Subtotal				0	
GRAND TOTAL				7504	

For Full Document:

<http://wp.wpi.edu/capetown/files/2014/11/Flamingo-Crescent-Playground-BOQ-Flamingo-Crescent-BOQ.pdf>

Maintenance List

Item To Be Checked	Status		Notes
	Good	Bad	
Equipment Footings (not exposed or loose)			
No Sharp Edges			
All bolts are tightly connected			
No splintered, cracked, or rotted wood			
No damaged paint (peeling or vandalized)			
No protruding nails			
No deteriorating ropes			
No cracked cement			
No trash or other foreign items in sand			
No stolen/missing items			
No litter in the park			
Trash cans have been emptied			
Plants have been watered			
No tripping/slipping hazards			
Check all tires for pooling water or bee hives			
No containers of standing water			
No poisonous plants in the area			
All equipment is damage free			