













GAME PIECES







Price Cheat Sheet

	Cost	Emissions	Rent
Low Cost Construction	6	5	3
Conventional Construction	11	3	4
Green Construction	16	1	5
Shopping Construction	24	10	10
Retrofit 	9	-2	+1
Green Space 	6	-3	+1 Per building
Eco-Park 	10	-5	+1 Per building
Forest 	—	—	+1
Shoreline 	—	—	+1



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Rent Track



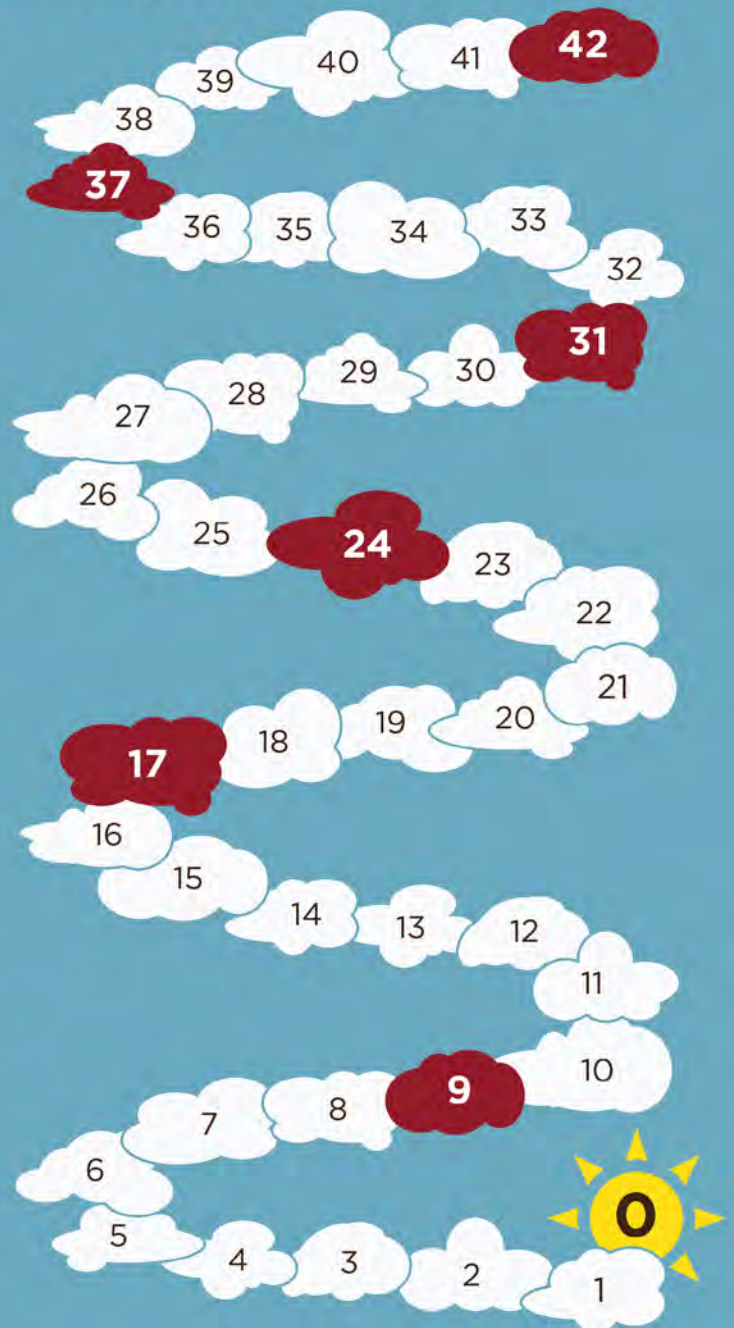
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

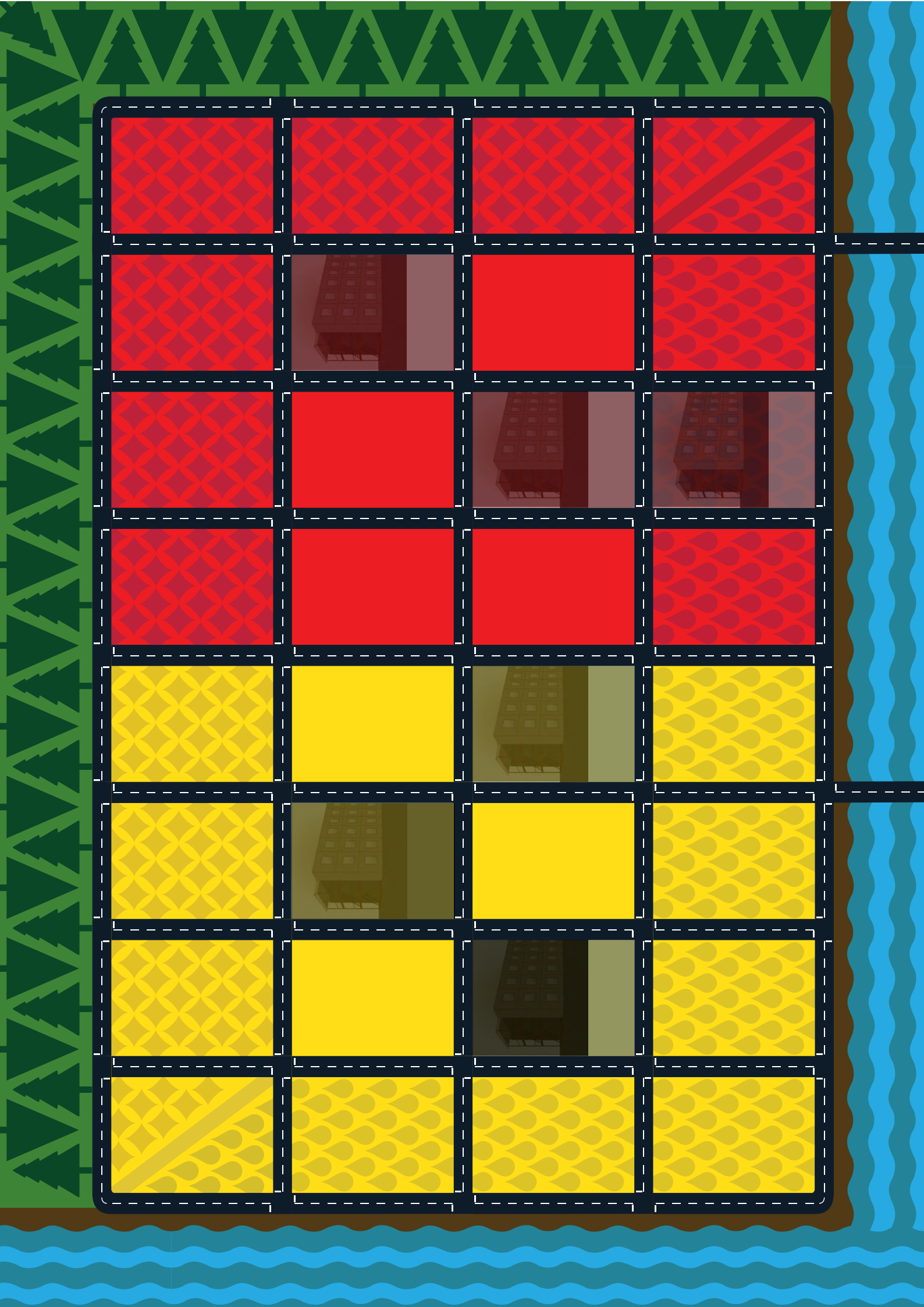


Emissions Track

105	106	107	108	109	110	111	112	13
97	98	99	100	101	102	103	104	12
89	90	91	92	93	94	95	96	11
80	82	83	84	85	86	87	88	10
73	74	75	76	77	78	79	80	9
65	66	67	68	69	70	71	72	8
57	58	59	60	61	62	63	64	7
49	50	51	52	53	54	55	56	6
41	42	43	44	45	46	47	48	5
33	34	35	36	37	38	39	40	4
25	26	27	28	29	30	31	32	3
17	18	19	20	21	22	23	24	2
9	10	11	12	13	14	15	16	1
1	2	3	4	5	6	7	8	0

Atmospheric Damage







 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*
 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*
 Eco-Park 🔄 -5 💰 0*	 Eco-Park 🔄 -5 💰 0*	 Greenspace 🔄 -3 💰 0*	 Greenspace 🔄 -3 💰 0*	 Greenspace 🔄 -3 💰 0*	 Greenspace 🔄 -3 💰 0*	 Greenspace 🔄 -3 💰 0*
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 Greenspace 🔄 -3 💰 0*	 Greenspace 🔄 -3 💰 0*	 Greenspace 🔄 -3 💰 0*	 Greenspace 🔄 -3 💰 0*	 Greenspace 🔄 -3 💰 0*	 Greenspace 🔄 -3 💰 0*	 Green 🔄 +1 💰 +5
 Green 🔄 +1 💰 +5	 Green 🔄 +1 💰 +5	 Green 🔄 +1 💰 +5	 Green 🔄 +1 💰 +5	 Green 🔄 +1 💰 +5	 Green 🔄 +1 💰 +5	 Green 🔄 +1 💰 +5
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Unusually high levels of flooding creates a disaster!

- Loose all Low-Cost buildings next to the shore
- All Conventional buildings next to the shore become Low-Cost buildings
- Green buildings are not affected



Eminent Drought!

Without water, Greenspaces dry up

- Players loose all Greenspaces
- Eco-parks are downgraded to Greenspaces



Climate Change News Forecast (No effect)

Ominous tales speak of flooding, horrible storms, and unprecedented droughts. Good thing that isn't happening here!



Hurricane Strikes!

Storm surge and heavy winds batter your developments

- Each player loses all their Low-Cost buildings.



Torrential Rain!

A lot of rain causes massive mud-slides

- Any buildings or parks next to the Forest (the green edge of the board) are lost



Vector Disease Outbreak!

Due to unnaturally warm weather, mosquito breeding grounds increase spreading vector-born diseases

- Each player loses 3 renters from their constructions due to the local epidemic

BROKEN CITIES

**A GAME ABOUT THE COSTS OF CLIMATE CHANGE
ADAPTATION VERSES MITIGATION.**

This game can be played with four players or 8-20 players with the help of a facilitator.

OBJECTIVE

Broken Cities is a competitive city-building game where players compete as landlords to become the wealthiest land barron in the city. Will you be a polluting profit chasing slumlord, or a green-minded real estate mogul? The choice is yours.

The game ends when one player collects 50 rent per turn, or the Atmospheric Damage Track reaches 42.

WHAT IS THIS ALL ABOUT?

Broken Cities is a game that asks, “Why don’t people make green decisions?” It abstracts real-world concepts for the sake of game play, but the core of the game allows players to make decisions as landlords, competing for the top place among all landlords in a city.

What rules will govern how you build your city? When a city’s emissions hit a threshold, players collaborate on legislation to “fix” their city’s environmental problems. This legislation session attempts to simulate situations in which legislation is actually created, leading to thought-provoking and playful moments of realization.

In Broken Cities, the spectre of climate change is a limiting factor on growth. In real life, it is difficult to directly correlate local weather events with climate change, but the game world of Broken Cities, this is not the case. Players see the direct consequences of their emissions decisions in near real time.

Not only is the game engaging for 4 players, it can be played with 8 to 24 people in competing teams. Each team of three or four players runs a city. The emissions of all the cities are added together, just as a country’s total emissions are made up of the impact of all it’s cities combined. One team may choose to be as green as possible, while another ignores emissions to focus on profit. Players must deal with the consequences of other players decisions, regardless of how their team plays. This helps them empathize with conditions in real world places that live daily with the consequences of high polluting nations.

WHAT IS IN THIS GUIDE?

This document has everything you need to play a game of Broken Cities. We recommend printing the game pieces on recycled, heavy card-stock as quality pieces adds to players’ play experience. Each guide has enough pieces for four players, if you are playing a game with more than four players, you should print and cut game pieces for every four players expected to play.

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Climate Change, End of the Game	page 8
Facilitation Guide	pages 9-10
Game Pieces to Print	separate pdf

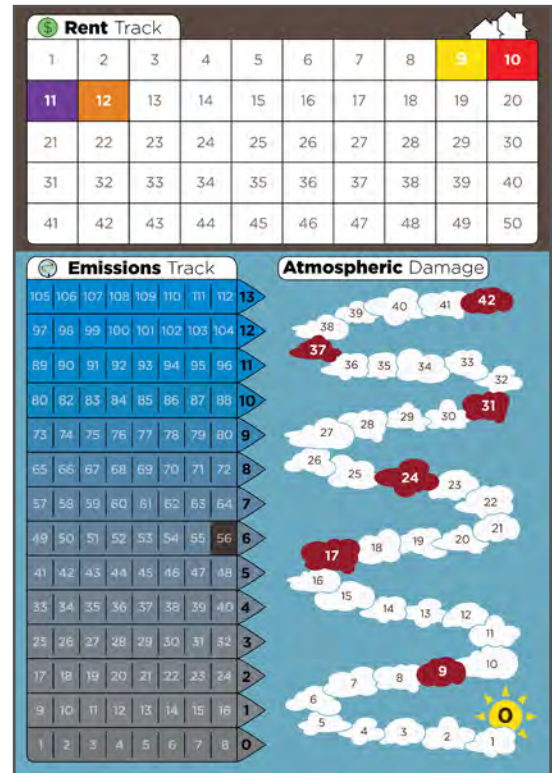
DETAILS OF GAME COMPONENTS

Game Boards:

1 City Block Board (2 Pieces)



1 Emissions and Rent Board



Cards:

4 Price Cheat Sheets

Price Cheat Sheet	Price Cheat Sheet	Price Cheat Sheet	Price Cheat Sheet
Low-Cost Construction Conventional Construction Green Construction Shopping Construction Eco-Park Construction Greenspace Construction	Low-Cost Construction Conventional Construction Green Construction Shopping Construction Eco-Park Construction Greenspace Construction	Low-Cost Construction Conventional Construction Green Construction Shopping Construction Eco-Park Construction Greenspace Construction	Low-Cost Construction Conventional Construction Green Construction Shopping Construction Eco-Park Construction Greenspace Construction

6 Atmospheric Event Cards



Constructions:



Markers:

4 Rent Markers



Emissions Marker



Atmospheric Damage Marker



36 Renters

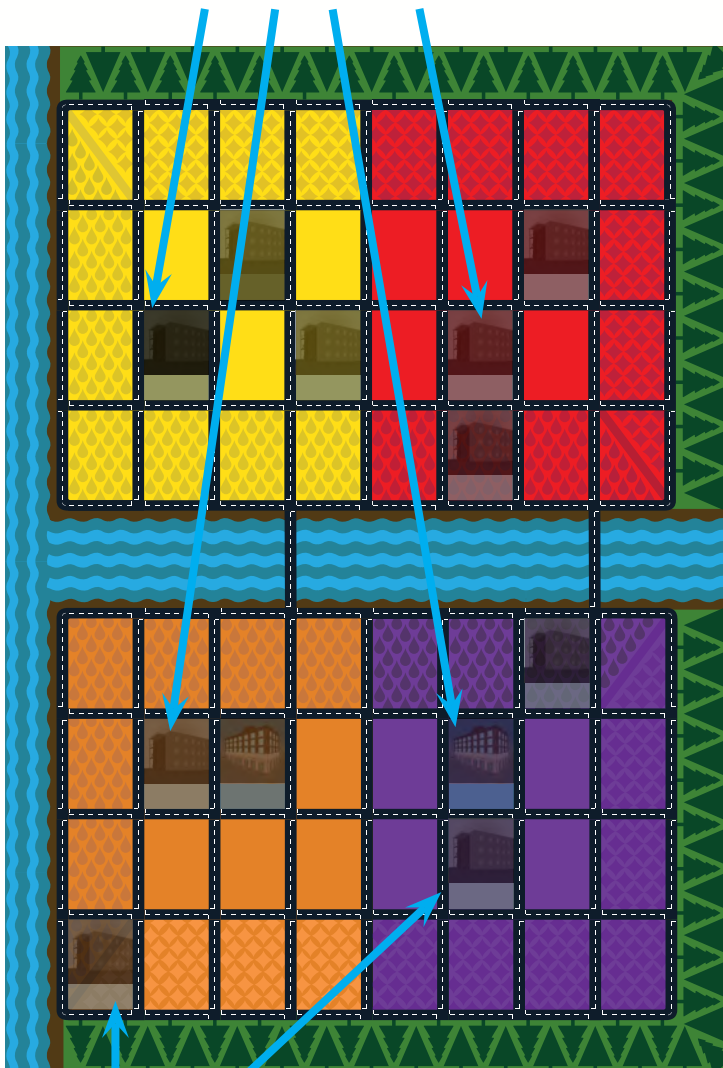


Counters for Money
(Not included. Poker chips or small stones work well.)

SETUP

1 Place Starting Constructions

- Yellow receives 3 Low-Cost Buildings
- Red receives 3 Low-Cost Buildings
- Orange receives 2 Low-Cost and 1 Conventional Building
- Purple receives 2 Low-Cost and 1 Conventional Building



12

Starting renters



4

Available renters



16

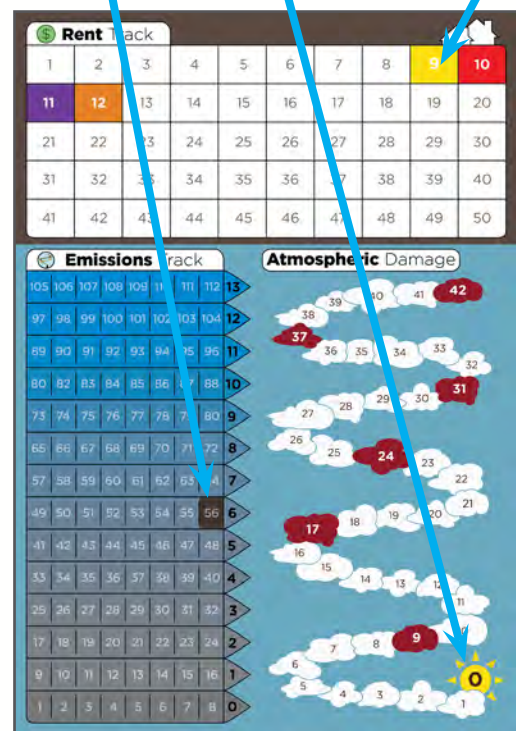
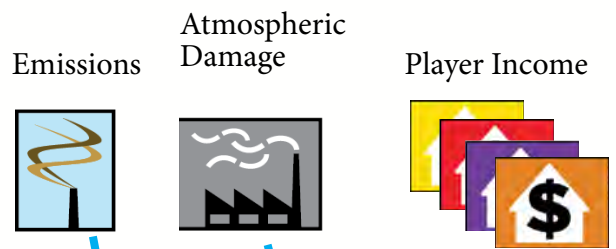
Reserved Renters

3 Place Renters

Place 12 renters on the starting constructions. Place the rest of the renters aside, then pick out 4. These are the starting available renters.

2 Position Markers

Set on the designated starting positions:



Price Cheat Sheet	Price Cheat Sheet	Price Cheat Sheet	Price Cheat Sheet
Low Cost Construction	Low Cost Construction	Low Cost Construction	Low Cost Construction
Conventional Construction	Conventional Construction	Conventional Construction	Conventional Construction
Green Building	Green Building	Green Building	Green Building
Energy Efficient	Energy Efficient	Energy Efficient	Energy Efficient
Water Efficient	Water Efficient	Water Efficient	Water Efficient
Smart Home	Smart Home	Smart Home	Smart Home
Green Space	Green Space	Green Space	Green Space
Urban Farm	Urban Farm	Urban Farm	Urban Farm
Green Wall	Green Wall	Green Wall	Green Wall
Green Roof	Green Roof	Green Roof	Green Roof
Green Floor	Green Floor	Green Floor	Green Floor
Green Ceiling	Green Ceiling	Green Ceiling	Green Ceiling
Green Walls	Green Walls	Green Walls	Green Walls
Green Floors	Green Floors	Green Floors	Green Floors
Green Ceilings	Green Ceilings	Green Ceilings	Green Ceilings
Green Windows	Green Windows	Green Windows	Green Windows
Green Doors	Green Doors	Green Doors	Green Doors
Green Stairs	Green Stairs	Green Stairs	Green Stairs
Green Balconies	Green Balconies	Green Balconies	Green Balconies
Green Terraces	Green Terraces	Green Terraces	Green Terraces
Green Gardens	Green Gardens	Green Gardens	Green Gardens
Green Parks	Green Parks	Green Parks	Green Parks
Green Streets	Green Streets	Green Streets	Green Streets
Green Highways	Green Highways	Green Highways	Green Highways
Green Airports	Green Airports	Green Airports	Green Airports
Green Seaports	Green Seaports	Green Seaports	Green Seaports
Green Spaceports	Green Spaceports	Green Spaceports	Green Spaceports
Green Planets	Green Planets	Green Planets	Green Planets
Green Universes	Green Universes	Green Universes	Green Universes
Green Galaxies	Green Galaxies	Green Galaxies	Green Galaxies
Green Cosmos	Green Cosmos	Green Cosmos	Green Cosmos
Green Universe	Green Universe	Green Universe	Green Universe
Green Everything	Green Everything	Green Everything	Green Everything

4 Give Players Cheat Sheets

Each player should receive one cheat sheet.

5 Other Game Pieces





The remaining construction game pieces should be set aside in an easy to reach place.

ROUND STRUCTURE



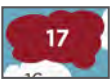

The game is divided into rounds. During each round each player has one turn. The player with the lowest rent at the beginning of the round goes first, followed by the player with the next lowest rent, until all players have had one turn.

A round is over when all four players have completed their turn. The Atmospheric Damage track is updated at this time. Legislation is created if necessary.

On a turn each player:

1. Receives Money based on where the marker is on the "Player Income" scoreboard. 
2. Purchases buildings and/or green spaces and places them in the city block.
3. Updates the Emissions scoreboard. 
4. Places renters on empty buildings, if renters are available. 
5. Updates "Player Income" scoreboard for all new buildings with renters. 

At the end of the Round:

1. Atmospheric Damage is calculated. 
2. The Atmospheric Damage track goes up. 
3. Legislation is created, if necessary. 
4. Climate Change effects happen, if necessary.
5. Four renters are added to the available renters. 


COUNTING RENT + EMISSIONS

Each building has a specific construction cost, emissions rating, and rent. When a new building, Greenspace, or Eco-Park is built, a player should calculate the new emissions first, then calculate their new rent.

Buildings only produce income for a player if they have a renter token on them.





Buildings always produce emissions, even without a renter.

Calculating Emissions

Add or subtract emissions to the "Emissions" scoreboard for the new building. Each building's emissions are located on the Price Cheat Sheet and at the base of the building's token. 

Calculating Rent

If your building has a renter:

1. Add the building's rent to your current "Player Income" total. 
2. Add 1 to rent if the building is adjacent to the forest. 
3. Add 1 to rent if the building is adjacent to the shore. 
4. Add 1 to rent if the building is adjacent to a Greenspace or Eco-Park. 

This Conventional Construction gets 7 Rent: its rent price 4, + 1 from the Shore, +1 from the Forest, +1 from the Eco-Park. Nice move, Yellow Player!



Notes on Rent and Emissions

Buildings are only adjacent in the Cardinal Directions (up, down, left, right) not on the diagonal.

If you build a new Greenspace or Eco-Park, all adjacent buildings' rent go up by one if they were not previously adjacent to a Greenspace or Eco-Park, and have a renter token on them.

A building's rent does not go up for additional adjacent Greenspaces, shorelines, forests, or Eco-Parks. A building's rent can be increased a total of three times: once for the shore, once for the forest, and once for a Greenspace or Eco-Park.

A Greenspace or Eco-Park can only have 4 adjacent buildings, no more. A building cannot be adjacent to a Greenspace more than once, so its rent cannot go up by more than one. (It can be adjacent to the shore or forest and a Greenspace.)

Shopping Constructions' rent does not go up for adjacent Greenspaces or Eco-Parks.

Shopping Constructions do not need renters.

EXAMPLE TURN

1. Yellow Player receives 23 rent by referring to the rent tracker.

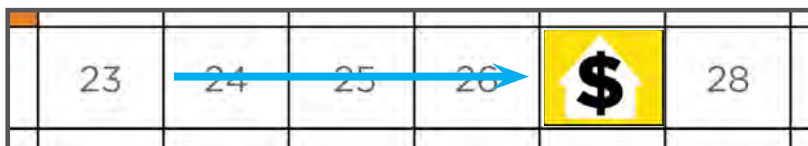
2. She then builds a Low-Cost building next to the shore for 6 money.

3. She moves the Emissions Track up 5.



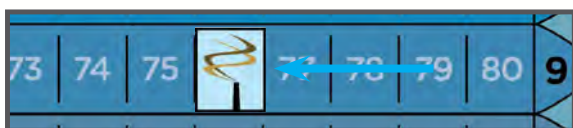
4. She takes a renter and places on the Low-Cost building.

5. She moves her rent up 4. 3 for the rent of the building and 1 for the adjacency to the shore.*



6. She then builds a Greenspace on the other side of the building, and also adjacent to an older building. This also costs 6 money.

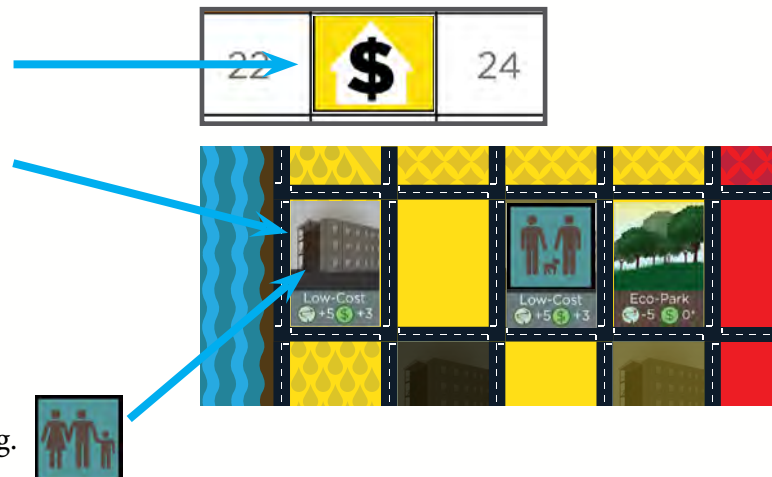
7. She then moves the Emissions Track down 3 for the Greenspace.



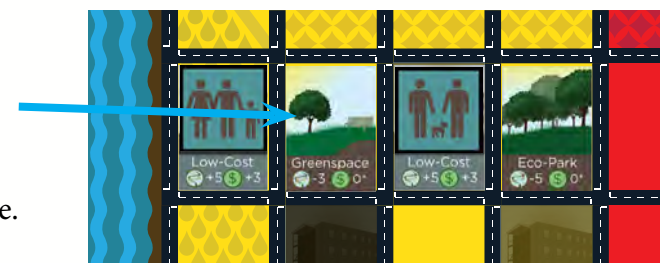
8. She then moves her rent up one for the Greenspace's adjacency to the new Low-Cost Building.*



9. She may build as long as she has money. Money left over at the end of turn may be saved for future use.



***Note: Players only receive rent for buildings with renters on them!**



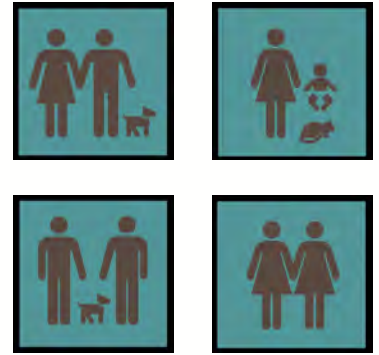
***Note: The old Low Cost Building to the right of the new Greenspace does not increase in rent because it is already adjacent to an Eco-Park.**

RENTERS

Just as in real life, buildings won't produce rent without renters. Each turn, there are only 4 renters available.

A player may take as many renters as they have empty buildings. Players may not take any renters without having an empty building to place them.

Renters that are removed from play due to climate change events, are removed from the game. Do not recycle them back into the game.



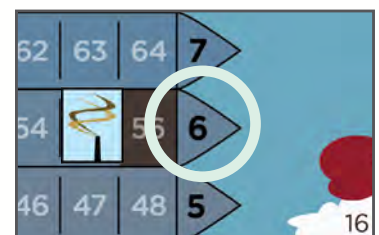
ATMOSPHERIC DAMAGE

Damage to the atmosphere is calculated by adding the number in the triangle to the right of the current emissions to the Atmospheric Damage Track.

Example: If the current emissions are 55, the Atmospheric Damage is 6. The Atmospheric Damage track should be advanced 6 spaces.

If the Atmospheric Damage Track hit a Climate Change Event marked by a dark red cloud, players must draw a Climate Change Event Card and resolve its effects.

After resolving a Climate Change Event Card, players must Create Legislation that everyone has to follow in order to attempt prevent the next Climate Change Event from happening.



Atmospheric Damage



Climate Change Event

CREATING LEGISLATION

If the Atmospheric Damage track reaches a Climate Change Event, players must make legislation to help curb emissions.

The law has to be unanimous to take effect.

Players must agree on one law each player must follow. Example: "Each player must build one Eco-Park on their turn." Penalties for any player not following the rule should also be decided upon amongst the players.

Players cannot make the price of constructions go down. These prices are fixed based on the "market" of the city. Players may make prices on certain items go up as incentive for other players to not buy them.

CLIMATE CHANGE

If the players reach a climate change event on the “Emissions Violations” track (located on the “Atmospheric Damage” board marked with a red cloud), they must shuffle the climate change event cards and draw one. The climate change deck has six cards:

1. Flood Card — Unusually high levels of flooding create a disaster. Loose all Low-Cost buildings next to the shore. Any Conventional buildings on a shoreline are downgraded to Low-Cost. Green buildings are not affected.
2. Drought Card — Without water, Greenspaces dry up. Players loose all Greenspaces, and Eco-Parks are downgraded to Greenspaces.
3. Torrential Rain Card — A lot of rain causes massive mud-slides. Any buildings or parks next to the forest (the green edge of the board) are lost.
4. Vector Disease Card — Due to unnaturally warm weather, mosquito breeding grounds increase and so do the instances of vector-born diseases. Each player loses 3 renters from their constructions due to the local epidemic.
5. Hurricane Card — Storm surge and heavy winds batter your developments. Each player loses all their Low-Cost buildings.
6. Climate Change News (No effect) — Ominous tales speak of flooding, horrible storms, and unprecedented droughts. Good thing that isn't happening here!



After climate change, update each player's rent and emissions. Any renters removed from the board have left the area to seek more habitable climates and are not available to move back. The drawn Climate Change Event card is discarded and not shuffled back into the deck.

END OF THE GAME

The game ends as soon as a player reaches or exceeds 50 rent. The round is then over, and other players do not get to complete their turns.

Players should discuss strategies for playing the game. How is the game congruent with real life? How is it different? Is it difficult to build green cities? Why or why not?

26	27	28	29	30
36	37	38	39	40
46	47	48	49	50

Purple is the winner!

FACILITATION GUIDE


Setup

Create tables of three to four people and one game board. There isn't room for five players, and with two players the legislative phase of the game is not as effective.

Use a large billboard, chalkboard, or other sign to keep track of the Atmospheric Damage. Be sure it is visible from every point in the room, as it dictates when Climate Change Events happen for everyone playing.

Atmospheric Damage

Because you have multiple people playing, you have to change the numbers for when Atmospheric Events happen. Optimally, a play session of Broken Cities should have 2-4 Atmospheric Events during the course of the game. Use the following table to figure out what numbers to use for the Number of Groups of 3-4 players you have.

Climate Change Event Number ↓	Number of Groups →					
	1	2	3	4	5	6
First	9	16	24	32	40	48
Second	17	30	45	60	75	90
Third	24	42	63	84	105	126
Fourth	31	54	81	108	135	162
Fifth	37	64	96	128	192	224
Sixth	42	72	108	144	216	252
 Atmospheric Damage Amount						

Each table plays independently from the others. When a table gets to the end of a round (all players have had one turn) they should inform the Facilitator how much Atmospheric Damage they have. The Facilitator should keep track of the Atmospheric Damage for all the tables publicly. When the emission level reaches a Climate Change Event Number as stated in the above chart, the Facilitator should stop the game, draw a card from the Climate Change Deck, and read it out loud so that all players can hear. All tables get affected with the same Climate Change Card.

Players may need help recalculating their rent and emissions after a climate change event happens. Be patient and try to get to each table in turn, but be careful! This is where the game may get bogged down.

Each group of three to four creates Legislation as normal; it only affects their table.

Quick Tips for Fun Game Sessions

- You are the judge in all rules matters; don't over-do it. Be consistent for everyone.
- Keep the game moving. No one likes to wait longer than necessary.
- Use cool custom pieces. For example, you could use fake coins for money, or plastic gems.
- Get someone to help. There are many tables, and it is difficult to answer all the questions at once.
- Use larger tables, and place a game board so two teams can see each other work. The competition between teams creates a fun atmosphere.
- Have prizes, and announce them at the beginning. We suggest one prize for first person to 50 Rent, one for "Most Green," one for the every member of a winning team, and one for every member of the greenest team.
- Create a narrative to draw player's interest at the beginning of the session. This helps keep player's engaged.

Post-Game Discussion

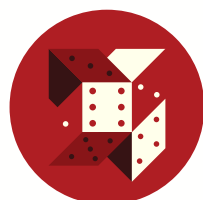
The discussion after the game is the most educational part of Broken Cities. Players get to consider real information they know about how cities function, and compare it to the game.

Sample Questions:

1. Why did the person that won win? Does this line up to real life?
2. Games often distort reality for dramatic effect. Do you have any part of the game you have an issue with?
3. If you could change something in the game to better reflect reality, what would you change?
4. Is the system where players come up with their own legislation a one that should be used in the real world?
5. What can be done in the real world to create more environmentally friendly cities?
6. How difficult is it to build greener cities? Does the game accurately depict this process?

Allow players to make suggestions for how to align the game better to real life, but try to steer the discussion away from the game itself, and onto the lessons learned through play.

Have fun, and good luck!



Antidote Games

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