Environmental Engineer: _____

(your name here)

What's your solution?

You'll help Beachtown by planting wetlands. A wetland is a swampy area between the ocean and dry land. The plants in a wetland knock down the storm surge so the town doesn't flood. Wetlands protect against storm surge but they don't protect against river flooding.

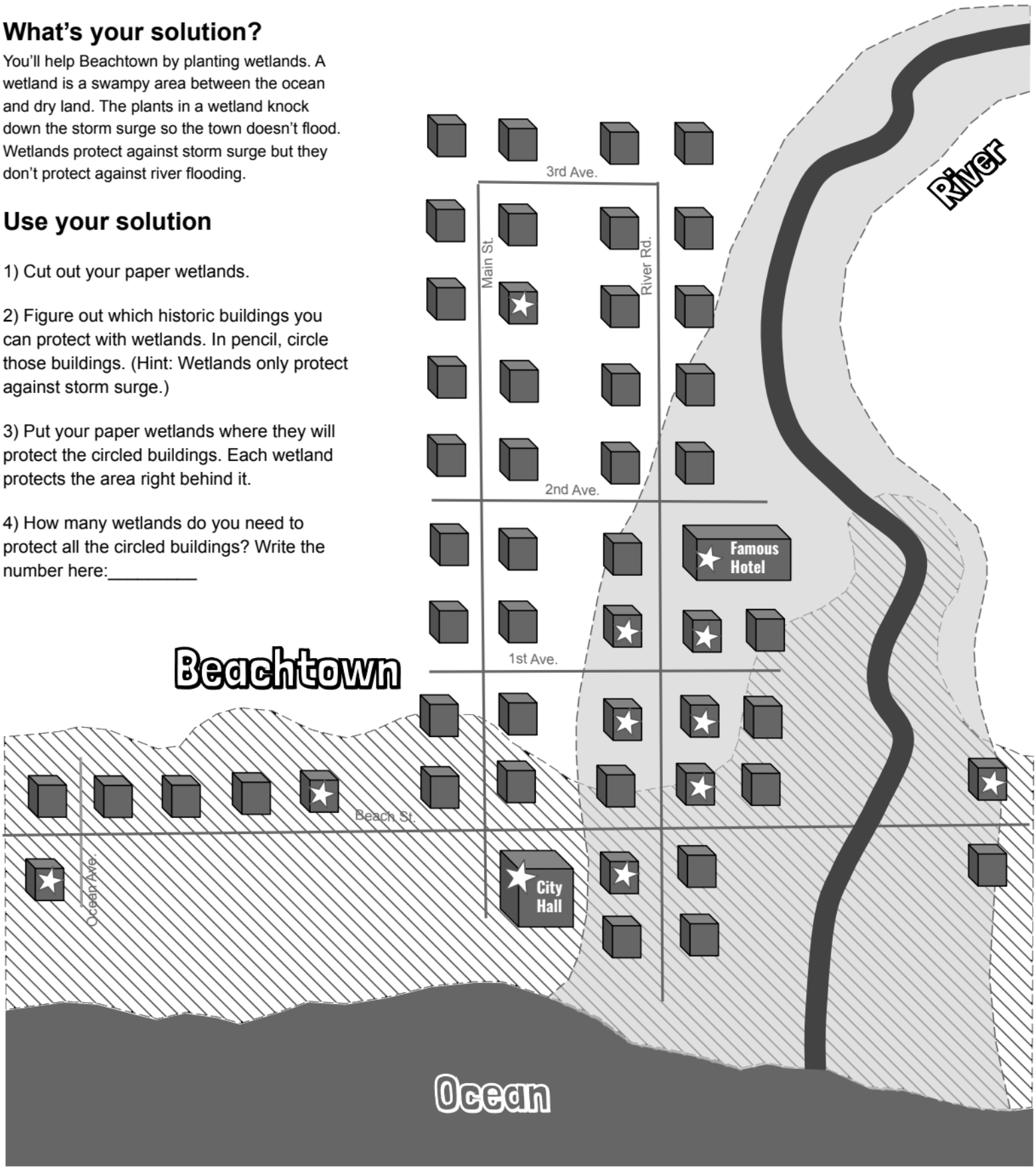
Use your solution

1) Cut out your paper wetlands.

2) Figure out which historic buildings you can protect with wetlands. In pencil, circle those buildings. (Hint: Wetlands only protect against storm surge.)

3) Put your paper wetlands where they will protect the circled buildings. Each wetland protects the area right behind it.

4) How many wetlands do you need to protect all the circled buildings? Write the number here:_____



Key:

- Flooded by the ocean storm surge
- Flooded by river overflow (due to rain)
- Historic building

mystery science

How can you save a town from a hurricane?

Seawall Engineer: _____

(your name here)

What's your solution?

You'll help Beachtown by building seawalls. A seawall is a strong concrete wall, built to stand between the ocean and the town. It can stop storm surge, but won't protect against river flooding.

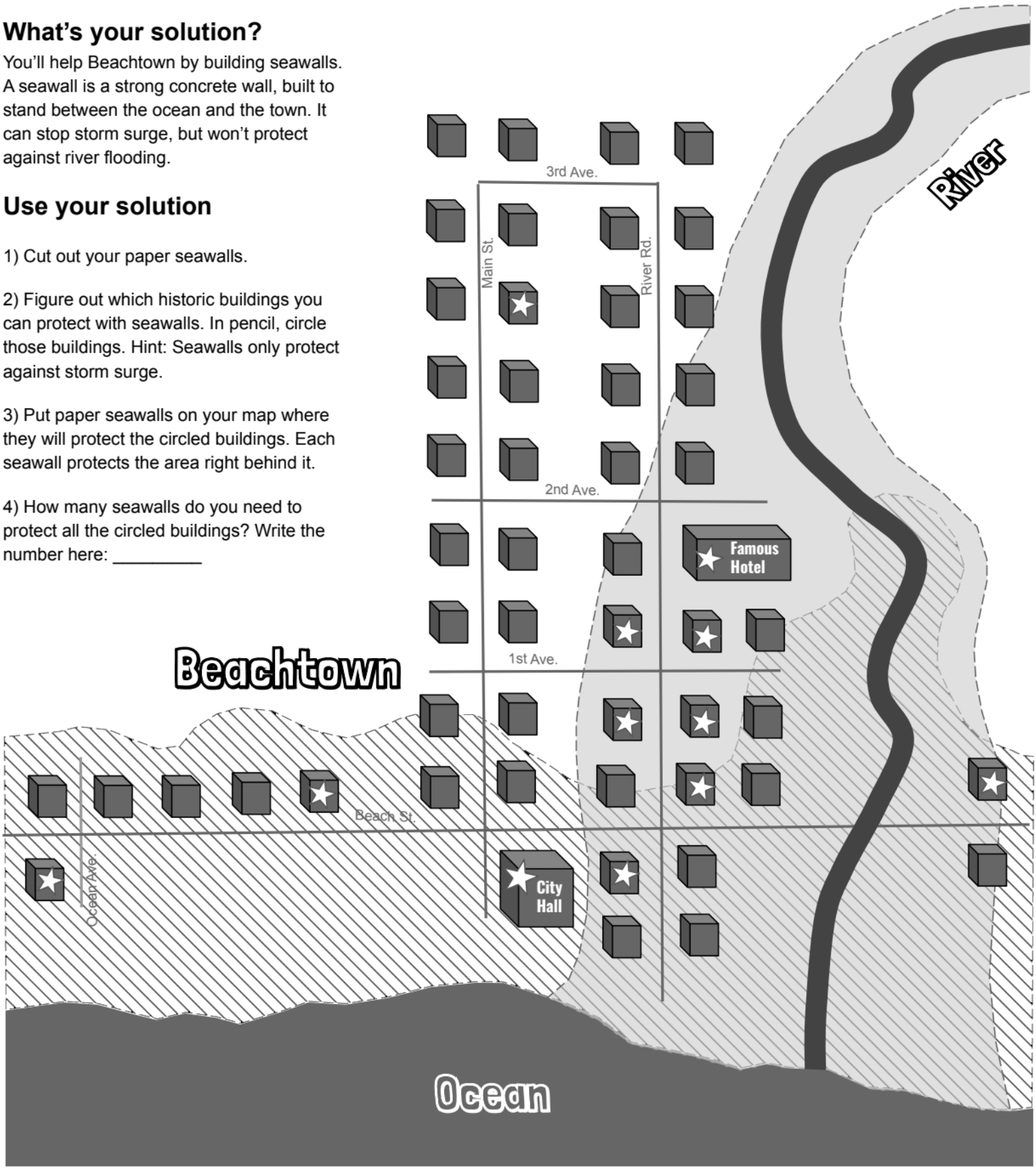
Use your solution

1) Cut out your paper seawalls.

2) Figure out which historic buildings you can protect with seawalls. In pencil, circle those buildings. Hint: Seawalls only protect against storm surge.

3) Put paper seawalls on your map where they will protect the circled buildings. Each seawall protects the area right behind it.

4) How many seawalls do you need to protect all the circled buildings? Write the number here: _____



Key:

- Flooded by the ocean storm surge
- Flooded by river overflow (due to rain)
- Historic building

mystery science

How can you save a town from a hurricane?

Levee Engineer: _____

(your name here)

What's your solution?

You'll help Beachtown by building levees. A levee is a wall of earth or stone built between the river and the town. Levees protect against a flooding river, but don't protect against storm surge from the ocean.

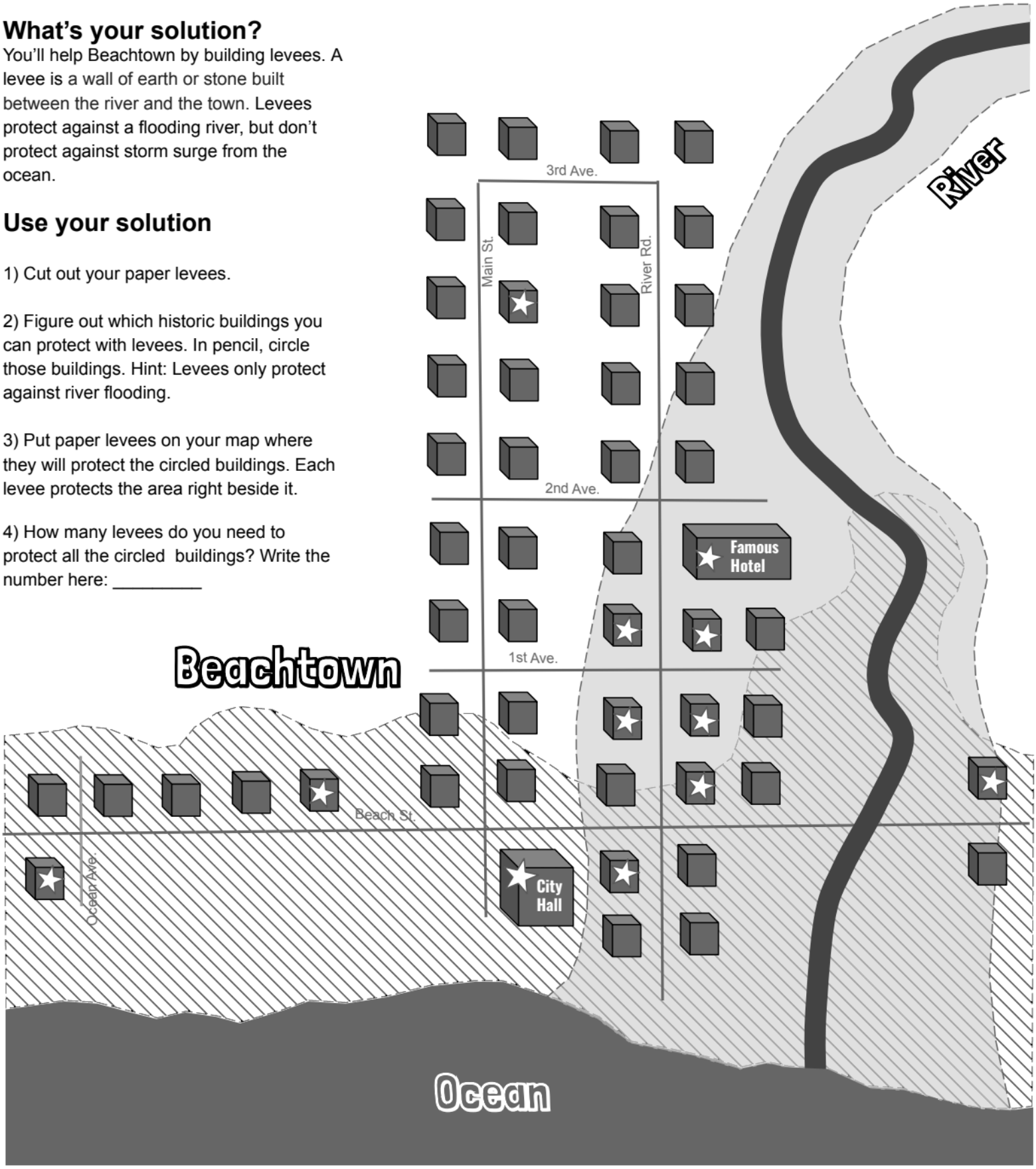
Use your solution

1) Cut out your paper levees.

2) Figure out which historic buildings you can protect with levees. In pencil, circle those buildings. Hint: Levees only protect against river flooding.

3) Put paper levees on your map where they will protect the circled buildings. Each levee protects the area right beside it.

4) How many levees do you need to protect all the circled buildings? Write the number here: _____



Key:

- Flooded by the ocean storm surge
- Flooded by river overflow (due to rain)
- Historic building

mystery science

How can you save a town from a hurricane?

Structural Engineer: _____

(your name here)

What's your solution?

You'll help Beachtown by putting buildings on stilts. Each set of stilts lifts a building above flood waters. For this solution to work, you must put stilts under every historic building you need to protect. Stilts protect from both river flooding and storm surge.

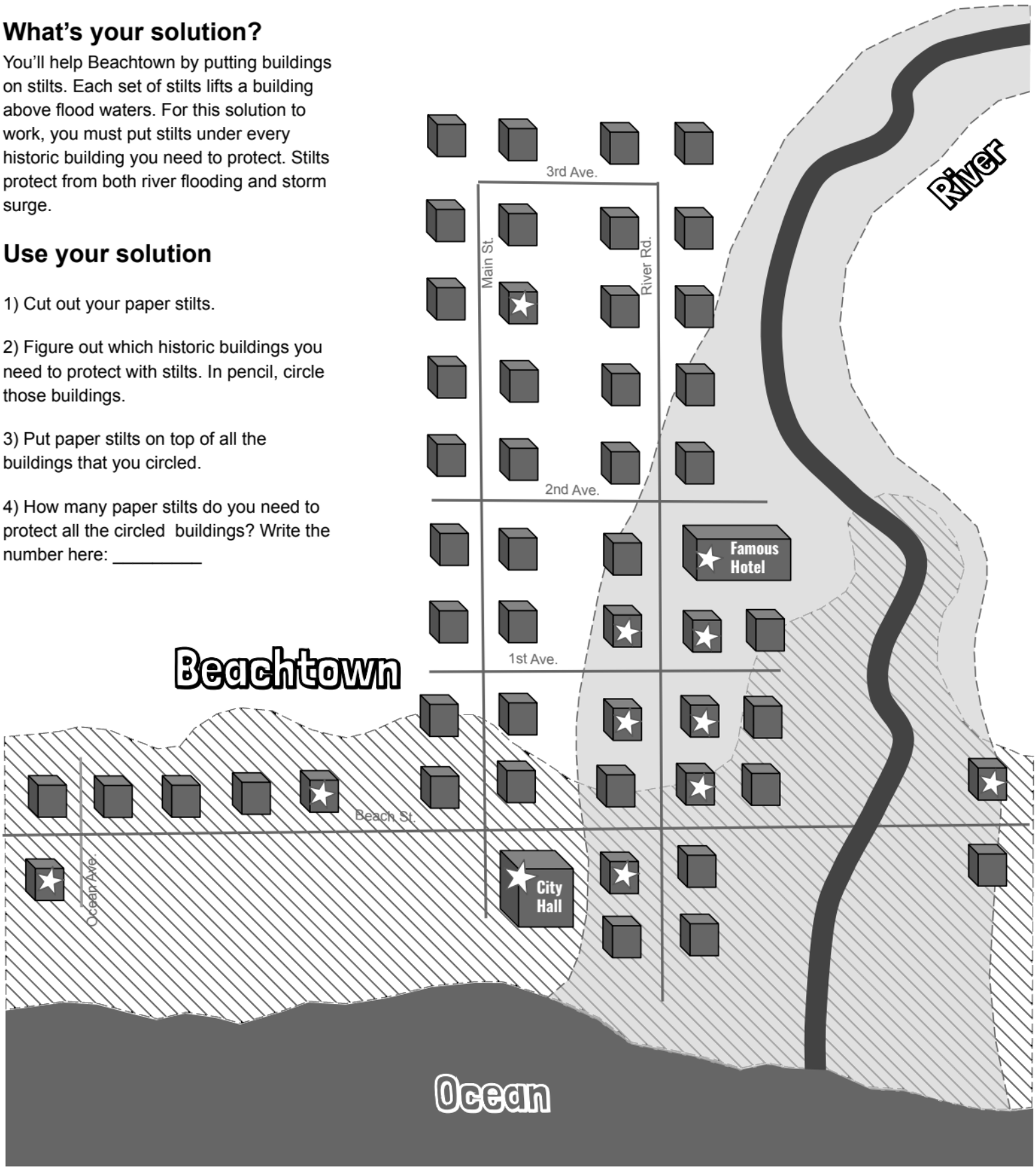
Use your solution

1) Cut out your paper stilts.

2) Figure out which historic buildings you need to protect with stilts. In pencil, circle those buildings.

3) Put paper stilts on top of all the buildings that you circled.

4) How many paper stilts do you need to protect all the circled buildings? Write the number here: _____



Key:

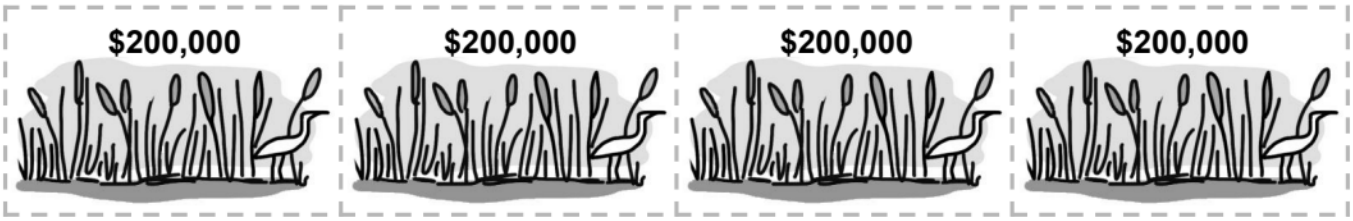
- Flooded by the ocean storm surge
- Flooded by river overflow (due to rain)
- Historic building

mystery science

How can you save a town from a hurricane?

Environmental Engineer

Solution: Protect against storm surge by planting wetlands

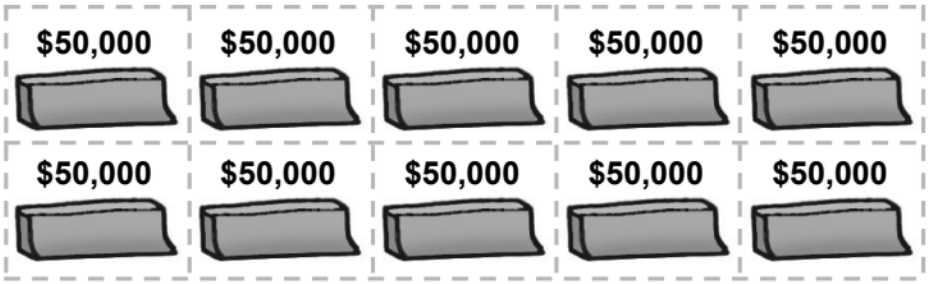


Structural Engineer

Solution: Protect against all kinds of floods by putting buildings on stilts

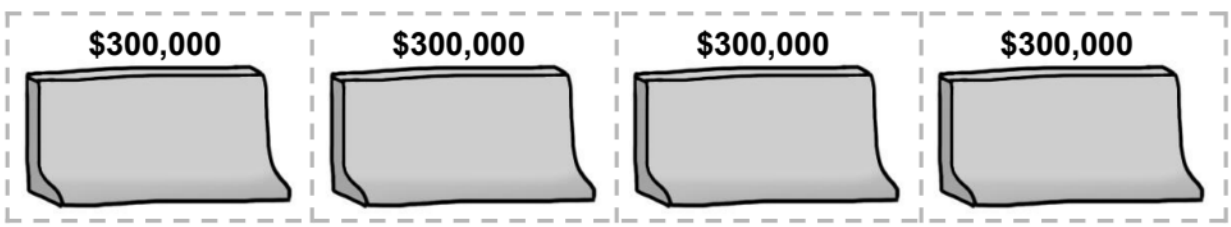
Levee Engineer

Solution: Protect against overflowing rivers by building levees



Seawall Engineer

Solution: Protect against storm surge by building seawalls



mystery science

How can you save a town from a hurricane?