

# 2011 ROTCH SCHOLARSHIP DESIGN COMPETITION

## BODY BY GREENWAY



FIG. 1

### AN ECOLOGICAL GYM AND ATHLETIC FIELDS ON THE ROSE KENNEDY GREENWAY IN DOWNTOWN BOSTON

The Greenway's vision was to be an active park, a destination for tourists and a museum center. With many projects on hold, the Greenway has fallen victim to editorial critiques on how to fix the park.<sup>1</sup> The public is often described as inactive agents for change. We, as participants in public life, can have a more active role in the design process and in the overall success of public parks. As Valerie Burns argues "the local community must be seen as more than the user or client for a park...it must be a partner – a partner that can bring real assets to both the creation of parks and the operations of parks."<sup>2</sup>

After years, there is still not enough happening on the Greenway. This competition promotes an active populist agenda, through the introduction of an ecological gym and athletic fields in which the Greenway can embrace its full potential as a vital open space for all people. We are looking for alternative inspirations, radical projects and polemical visions.

### BACKGROUND: URBAN MOBILITY

The historic city of Boston, with its long record of urban transformation, has more than 1,121 acres of landfill dating back to 1830. Like the concrete that makes up much of the landscape, Boston is a true composite of new and historic building materials, of rubble and gravel.

Starting with the largest and most expensive project to ever transform Boston, what is lovingly called “The Big Dig”, this mass transit project relieved traffic congestion through the city by routing the Central Artery (or highway I-93) into a massive underground tunnel. The Big Dig merged the six lanes of the Central Artery with as many as ten lanes of expressway built underground - including the mass transit’s “Silver Line” tunnel that connects South Station and Logan Airport - ultimately proving to be one of the nation’s most technically difficult and environmentally challenging projects.

But while the Big Dig was expensive and took a decade to complete, it did much more for Boston than relieve commuter travel and reduce carbon monoxide levels. By eliminating a physical boundary that had once separated downtown from its neighboring district, the North End and Waterfront, the Big Dig transformed the city. In its wake, more than 45 parks and major public spaces were created including the Rose Kennedy Greenway, constructed in 2008. The ambition for the transformation was to leave three quarters of the 30 downtown acres as open spaces, and to set aside the rest for modest low-rise development for retail, housing, and commercial use.<sup>3</sup>

The Rose Kennedy Greenway reconnected the city to its neighborhoods through its parks and public spaces along the elevation created by the Big Dig. This greenway, stretching a mile and a half, connects nine districts: Chinatown; Leather District; Dewey Square; Financial District; Wharf District; Town Cove; Market District; Government Center; and the North End.

### **TO BE COMPLETED... THE GREENWAY**

Through a series of unfortunate events, certain cultural and institutional projects planned as part of the Greenway were never realized. City leaders had planned to build a YMCA, a Boston Museum, the New Center for Arts and Culture, and the Horticultural Greenhouse, four major projects that ultimately lacked proper financing or that needed additional expensive engineering in order to be constructed on the elevated

space. City officials have hinted this year that perhaps a ‘building-free Greenway’ is a better proposition for the city, to let people continue experiencing the Greenway as it exists now.<sup>4</sup>

But what is lacking on the Greenway is not just buildings or institutions that bring visitors or that anchor the space, it is also a sense of identity in both directions along the Greenway and a grander vision of creative public arts programming. Even with the YMCA, the Boston Museum, and the other cultural centers that were proposed several years ago, the Greenway would still be torn into multiple fragments by traffic from the motorways going against the grain of the Greenway.

The architectural proposal for you is to complete the Greenway by rethinking the Greenway’s cross grain, peripheral edges, corners and connectivity between the abutting neighboring districts. Consider what might be the appropriate amount of buildable density and civic space to make the Greenway an active urban destination year round. As it exists, it has been described as both a desolate public space and as a developer’s dream of available real estate to develop for profit. For the Greenway to succeed, how do you see it beginning to embody the life of the city? Do you propose to let the environment shape and change your proposal, or the reverse?

### **ARCHITECTURAL PROGRAM**

“By getting to know the gym, you are getting to know the town.” - Manuel de Arriba Ares

The architectural proposal for you is to design an ecological gym on the designated Greenway site with a multi-modal loop track and athletic fields. You have the option to locate the multi-modal loop track and at least two athletic fields on or near the building site or on the Greenway. The multi-modal loop track is a continuous exercise track that includes bicycle and pedestrian lanes. The proposal should consider what Bostonians value as city dwellers, such as health, safety and welfare, behavior, community, public transportation, social interaction, and



sustainability, all of which bring out the best of urban life. In line with the Rotch Preliminary Competition theme, to promote Boston's long tradition of being a "pedestrian city," and to reconnect the island parcels along the Greenway, consider bridges as one solution for creating continuity.



Image from Frederick Law Olmstead and the Boston Park System by Cynthia Zaitzevsky, page 100 (fig 71, View of the men's gymnasium, 1889)

Somewhere between a YMCA and a museum, the ecological gym would offer a more open-ended program leaving room for the creative design of public spaces and future activities. This experimental facility would host year-round sport activities and public concerts benefitting the surrounding neighborhoods and the public at large. Primarily a gym with an ecological and cultural focus, this facility is an active recreational vision for the Greenway. Exhibitions of interactive arts, technology, performance art, design and various art installations could happen within the enclosed facility. The building would host flexible studios that could be used for community meetings, lectures, exhibits, as well as traditional workout rooms.

One outcome of the public free programs in our cities is that people have more to do, and therefore fewer instances of crime. The usefulness of public space is in the eye of the user – it relies on the creativity of the urban dweller to be the curator of his or her space. This is a main reason that museums such as the Guggenheim have extended their mission beyond the confinements of physical walls. They recently envisioned a six-year project, the BMW

Guggenheim Lab, comprised of an urban think tank, community center, and gathering space to be sited on public parks in the city and all over the world. The modest building structure will have a curated program to inspire the next generations of ideas and design for urban life. The curators of the Guggenheim wanted to take an art-related program into the city, to reach out to the general public and 'do more than just collect great works of art.'<sup>5</sup> To be a leading global institution, they realized they had to interact, reach out, and collaborate with the local culture.

How can your proposal engage Bostonians to shape their surroundings while also being a platform for an exchange of knowledge and experience from visitors all over the world? How can the athletic facility support a sense of community, and how can it help make visitors aware of their carbon footprints?

Answers to these questions lead to a new realization that we no longer need to fund expensive building institutions to offer art and culture in our cities. You can credit technology for providing accessibility to design and knowledge. But what is still very important and relevant is the role of architecture and design in bringing people together and in promoting continuity of the urban fabric around us and into our architecture. Parks are not just for looking at from a bench – they're to be inhabited with activity. The ecological gym and athletic fields would do that. It is both a tabula rasa to allow for spontaneity program to inform the surroundings while also providing shelter to gather as a community and to promote healthy living in our cities.

## **BACKPEDAL: THE ANATOMY OF THE ROSE KENNEDY GREENWAY SYSTEM**

The Greenway aspired to be a destination park surrounded by cultural institutions. Beginning at the northern end of the 1.5 mile long Greenway, a four-story YMCA building was proposed four years ago over the ramps along North Washington Street. Abutting the North End

neighborhood, it was to include a pool, fitness space, childcare areas, family activities, and community space. Close to Faneuil Hall and Quincy Market, Moshe Safdie's proposal for a Boston Museum was to orient and welcome visitors to Boston by showcasing the area's history. The Boston Museum was to perform metaphorically as a band-aid, covering the disruptive ramp and creating a continuous pedestrian flow along the Greenway. The central portion of the Greenway covers four Wharf District blocks with the Boston Harbor Island Pavilion as a gateway and visitor center for tourists to visit the Harbor Islands. The first built structure on the Greenway slated to be completed this spring is a 4,500 square-foot pavilion designed by Utile located on the parcel perpendicular to State Street. Moving along the Greenway, a four-story New Center for Arts and Culture building was proposed by Daniel Libeskind. The New Center for Arts and Culture had a strong mission to bring together people once separated by race, geography, and religion, through public programming such as lectures, concerts, and art exhibitions. It was to be sited perpendicular to Oliver Street with the dual purpose of providing a theater, galleries, meeting room, and café, while simultaneously hiding the exposed ramp for pedestrian continuity. Close to South Station, a greenhouse was also proposed by the Massachusetts Horticultural Society, but the project fell short of funding. Finishing the promenade of the Greenway, Chinatown Park is an open plaza for community events or space of relaxation.



FIG. 2

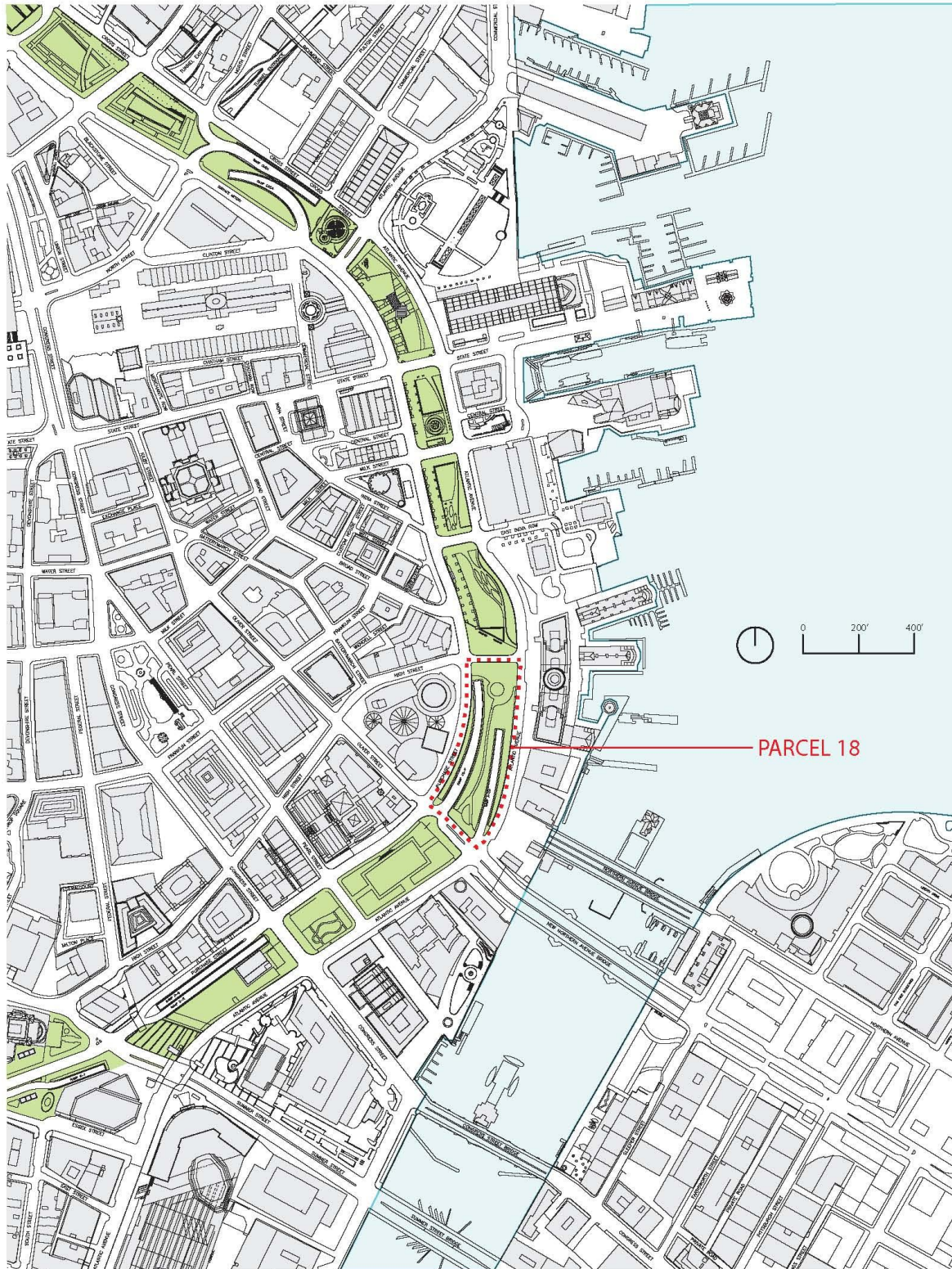
### **PUBLIC AND PRIVATE PARTNERS**

The Massachusetts Department of Transportation (MassDOT) owns the Greenway and operates the highway beneath. The Greenway Conservancy is a non-profit organization that maintains, programs, and manages the Greenway. Given the current economic situation and engineering difficulties, the Greenway Conservancy, MassDOT, and the City of Boston are creating an interdisciplinary consortium of leaders from the Innovation District; this consortium's purpose is to create and fund an experimental ecological public facility gym, showcasing the latest research and development of green technology in the building facility where issues of the environment, health, community and design meet in the overall design of the public programming activities within this athletic facility complex. To help fund the project, the green technology companies are providing the innovative technology to provide energy and water to the facilities, as well as maintenance them at no cost. The physical gym is being financed by the city through tax funds. Additional funds will also come from corporate sponsorships supporting competitive games and public programming on the Greenway.



## GREENWAY SITE 27 acres

### LOCATION OF PROPOSAL Parcel 18 of the Central Artery Special District Zoning Map



For the purpose of this competition, current zoning regulations do not apply. To achieve greater human design performance, the building shall have fully accessible uses. Proposals should not be higher than 4 stories tall. Given the proximity of the decking structure of the Big Dig tunnel, no underground construction is allowable other than foundations. Choosing a minimum of two athletic fields, the multi-modal loop track and athletic fields may be limited to the proposed building site or nearby parcel or may influence the whole Greenway site. Entrants may choose to cover exposed tunnel ramps or propose bridges to achieve their overall urban vision.



FIG. 3 and 4



## PROGRAM

### ECOLOGICAL GYM

2000 members

**CORE SPACES** 27,000 SF

#### ADMINISTRATION

Vestibule / Entry Lobby – 100 sf

Reception – 125 sf

Refreshment area / juice bar – 150 sf

6 Offices for staff, trainers – 10'x12'

Public restrooms – 1 WC per 100 spectators

Appropriate storage

Laundry – 200 sf

#### FITNESS EQUIPMENT SPACES

4 Group exercise rooms: yoga, pilates, aerobics, etc. - 12 to 18 people

Free-weight areas - 50 linear feet of racks

Cardio areas: treadmills, stairs, etc. - 30 machines

Spin class areas -12 to 16 machines

#### RECREATIONAL AREAS & LOCKER ROOMS

2 Indoor racquetball courts – 20'x40'

Indoor swimming pool – 82'x164'

Locker rooms with shower – 1,000 sf each

Appropriate restrooms – 50 sf per WC

2 Saunas – 8'x10'

4 Tanning room – 8'x10'

2 Steam rooms – 8'x10'

10 Treatment rooms – 8'x10'

#### FLEXIBLE PROGRAM

18,500 SF

#### DANCE STUDIO & THEATRE

200 seat multi-purpose studio theatre for exhibition and performances – 2,500 sf

2 Rehearsal dance studio – 2,000 sf

#### COMMUNITY ROOMS & EXHIBITION

##### GALLERIES

2 Community rooms – 20'x30' sf

4 Classroom art studios – 30'x40'

Exhibition galleries - 8,000 sf

#### MECHANICAL EQUIPMENT

**& STORAGE** 16,000 SF

**NET AREA** 61,500 SF

**15% CIRCULATION** 9,225 SF

**GROSS AREA** 70,725 SF

### ATHLETIC FIELDS

Select a minimum of two from the list below.

Six-lane 200 meter track (300'x158')

2 pole vault locations (19'x20' landing mat)

2 long jump locations (131'x4' runway)

Medium soccer field (120' x 180')

4 Courts:

2 Tennis Courts / Aerobic Space (78'x27')

Basketball (94'x50')

Volleyball (59'x29'-6")

Calisthenics stations & supportive equipment (30'x40'):

Pull up bars

Parallel bars

Push up stations

Monkey bars

Seats for 1500 fans (7 sq.ft. per seat)

### MULTI-MODAL LOOP TRACK

7' minimum width for shared bicycle and pedestrian lane. Length to be determined by entrant.

### FUN FACTS

Per member total emissions (lbs) :

Conventional gym =356.19

Gym using energy producing equipment  
= 63.20.

Per member total water usage per cubic feet:

Conventional gym = 168.818

Using Oasys water technology for power  
and water = 14.667

## SUBMISSION REQUIREMENTS

The presentation is limited to four 30" x 36" mounted boards displayed side-by-side vertically. No projections from the boards are permitted. Your drawings should be clearly labeled and a descriptive text provided outlining the conceptual framework, goals and a basic description of the proposed design not to exceed 200 words. Be sure to include your full name on each board. The following drawings are the minimum documentation required:

- Site plan showing proposal within the Greenway
- Scale floor plans with one floor plan drawn at 1/16" scale
- Section representing sectional organization of athletic facility
- Aerial view
- Three-dimensional eye level perspective views to include exterior elevations and interior views
- Diagrams and notation of strategy. At least three shall demonstrate:
  - The overall urban vision locating athletic fields and the multi-modal loop track
  - Circulation sequence
  - Programmatic distribution

The Rotch Committee reserves the right to use any boards or individual images on the boards for publication.

## SUBMISSION INSTRUCTIONS

For continuity, each competitor will use their original abstract graphic symbol and place it:

- On the face of each submitted board.
- On the Statement of Sole Authorship with the name of the competitor clearly printed, which you place in the sealed envelope and fasten to the back of one board.

- On the face of a sealed envelope securely fastened to the back of one board.

### ELECTRONIC SUBMISSION

- Due by 10:00 am on Monday, March 14, 2011 (your local time) to [snastasia@architects.org](mailto:snastasia@architects.org)
- Email an 11x17 digital copy of your boards in pdf format and/or low 72 dpi jpeg
- Attachments/boards may be submitted separately but each email must be smaller than 15MB
- You are welcome to use FTP services such as:  
<http://www.yousendit.com/>  
<http://www.sendspace.com/>  
<http://www.dropsend.com/>

### BOARD SUBMISSION

- Must exactly match digital submission, no edits permitted
- Due by 4:00 pm on Thursday, March 17, 2011
- Mail or drop off to:  
The Rotch Scholarship  
c/o Boston Society of Architects  
Fourth Floor  
52 Broad Street  
Boston, MA 02109
- Also by 4:00 pm on Thursday, March 17, 2011, we'll need you to send the following to [snastasia@architects.org](mailto:snastasia@architects.org):
  - Separate images and text from your boards
  - Your headshot



## **FINAL JURY**

You are required to present your submission to the jury for the Final Competition on Friday, March 25, 2011. The presentation will take place at KI showroom 115 Broad St, Boston. Please note that travel expenses are the responsibility of the finalist.

You will have a 25 minute period for your presentation; however the jurors may wish to ask questions so please prepare your presentation with at least 10 minutes for questions.

**STATEMENT OF SOLE AUTHORSHIP**

I hereby assure the Rotch Committee that I am the sole author of my submission for the 2011 Rotch Competition. I have not received criticism, suggestions or help of any sort other than through the use of books and other published literature.

Signed \_\_\_\_\_

Print Name \_\_\_\_\_

Symbol:

Note to all Competitors:

The above statement of sole authorship shall be placed in the sealed envelope pasted on the back of the board. Your symbol and full name must appear on the envelope as well as on the face of your submission boards.

## RESEARCH REFERENCES

Drawings, planning initiatives, zoning, research and publication materials for the site can be found on the website for the Boston Redevelopment Authority.

### GREENWAY DISTRICT PLANNING STUDY

With the Boston Redevelopment Authority, the Greenway has been working on a set of design guidelines for parcels adjacent to the Greenway to preserve the open spaces and to activate the public spaces in and around the parks.

<http://www.bostonredevelopmentauthority.org/pdf/PlanningPublications/GDPS%20-%20Use%20and%20Design%20Guidelines%20-%20August%202010.pdf>

### GREENWAY DISTRICT SHADOW STUDY

<http://www.bostonredevelopmentauthority.org/GDPS/3-21/Play-movie-2.html>

### PUBLIC MEETING DESIGN GUIDELINE PRESENTATION ON 4/29/10

<http://www.bostonredevelopmentauthority.org/pdf/PlanningPublications/GDPS%20Public%20Meeting%207%20PowerPoint%20Presentation%204-29-10.pdf>

### CROSSROADS INITIATIVE 2005

Study of twelve streets crossing the Greenway and how to reknit the neighborhoods.

<http://www.bostonredevelopmentauthority.org/crossroads/images/PressPacket2005-08-05.pdf>

### MAPS & AERIALS

Zoning: Central Artery Special District

<http://www.mapjunction.com/bra/>

[http://www.bostonredevelopmentauthority.org/pdf/maps/Neighborhoods/downtown\\_chntwn\\_tabloid.pdf](http://www.bostonredevelopmentauthority.org/pdf/maps/Neighborhoods/downtown_chntwn_tabloid.pdf)

[http://www.bostonredevelopmentauthority.org/pdf/ZoningCode/Maps/1xab\\_CAT.pdf](http://www.bostonredevelopmentauthority.org/pdf/ZoningCode/Maps/1xab_CAT.pdf)

### 2-DIMENSIONAL & 3-DIMENSIONAL MODELS IN DXF, AUTODESK VIZ 2005(6/7), MAX9(2008), 3DS, AUTOCAD 2000 .DWG AND GOOGLE EARTH KML(KMZ) FORMATS

[http://www.bostonredevelopmentauthority.org/BRA\\_3D\\_Models/Index.html](http://www.bostonredevelopmentauthority.org/BRA_3D_Models/Index.html)

For 2D: CAD Layers can be found under 2D Download, *f. Downtown and South Boston Waterfront CAD File*

For 3D: 3-Dimensional files can be found under 3D Download, *0. Greenway District Planning Shadow Study & 12. Downtown Buildings*

### 2-DIMENSIONAL AUTOCAD BLOCKS OF TRACK/FIELD LAYOUTS

[http://www.gillathletics.com/facilitycd/facilitycd\\_files/Page780.htm](http://www.gillathletics.com/facilitycd/facilitycd_files/Page780.htm)

### ROSE KENNEDY GREENWAY CONSERVANCY

Information on the hours, operations and events on the Rose Fitzgerald Kennedy Greenway Conservancy:

<http://www.rosekennedygreenway.org/about-the-conservancy/faqs.htm>

Greenway Site Images:

<http://www.rosekennedygreenway.org/visit/index.htm>

### BOSTON GLOBE ARTICLES

Ross, Casey. (2010, May 16). Greenway planners shifting approach – Simplicity, open vistas finding favor, as major building projects fail. *The Boston Globe*. Retrieved from [http://www.boston.com/realestate/news/articles/2010/05/16/greenway\\_planners\\_shifting\\_approach/](http://www.boston.com/realestate/news/articles/2010/05/16/greenway_planners_shifting_approach/)

Edgers, Geoff. (2010, March 12). Another jewel lost in Greenway crown: Financing trouble ends plans for \$80m cultural center. *The Boston Globe*. Retrieved from [http://www.boston.com/ae/theater\\_arts/articles/2010/03/12/another\\_jewel\\_lost\\_in\\_greenway\\_crown/](http://www.boston.com/ae/theater_arts/articles/2010/03/12/another_jewel_lost_in_greenway_crown/)

Campbell, Robert. (2002, March 12). A Paris match? Boston can learn something about creating new civic space from the City of Light. *The Boston Globe*. Retrieved from [http://www.boston.com/beyond\\_bigdig/cases/paris/index.shtml](http://www.boston.com/beyond_bigdig/cases/paris/index.shtml)



## GREEN GYMS

Basic principal is to harness human energy produced by movement and utilizes it in the form of electrical energy.

World's First Electricity Generating Gyms in Portland, Oregon: <http://thegreenmicrogym.com/>

Eco-Gym Video:  
<http://video.yahoo.com/watch/3655192/10063496>

Green Gym Videos:  
<http://www.youtube.com/watch?v=CnYv9KhEoXY>

<http://www.youtube.com/watch?v=c1rC7YVnPZ8>

<http://www.youtube.com/watch?v=HZiu26PGXf8>

## GREEN COMPANIES MOVING INTO THE INNOVATION DISTRICT

Howe, Peter. (2010, Dec. 16) Oasys sets up shop in South Boston. *NECN*. Retrieved from <http://www.necn.com/12/16/10/Oasys-sets-up-shop-in-South-Boston/landing.html?blockID=374913&feedID=4209>

## ADDITIONAL INFORMATION

Background on The Central Artery/Tunnel Project – The Big Dig:  
<http://www.massdot.state.ma.us/highway/bigdig/bigdigmain.aspx>

Boston Innovation District Website:  
<http://www.innovationdistrict.org/>

Surgeon General Testimony on “The Obesity Crisis in America” (2003, July 16). Retrieve from <http://www.surgeongeneral.gov/news/testimony/obesity07162003.htm>

## IMAGE CREDITS

Greenway Overview; Image Source FIG. 1:  
<http://www.bostoncondoloft.com/greenway-will-stay-green-for-now/>

Before and After, The Big Dig; Image Source FIG.2: <http://spacingtoronto.ca/2007/12/31/the-end-of-bostons-big-dig/>

Wharf District and Fort Point Channel Parks Map; Image Source FIG. 3:  
<http://www.rosekennedygreenway.org/a-walk-in-the-park/Channel.gif>

Overview of Greenway, 2008; Image Source FIG 4:  
<http://www.ireference.ca/search/Rose%20Kennedy%20Greenway/>

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<sup>1</sup> Globe Editorial, “How to Fix the Greenway,” *Boston Globe*, April 18, 2010 ([http://www.boston.com/bostonglobe/editorial\\_opinion/editorials/articles/2010/04/18/how\\_to\\_fix\\_the\\_greenway/](http://www.boston.com/bostonglobe/editorial_opinion/editorials/articles/2010/04/18/how_to_fix_the_greenway/)).

<sup>2</sup> Valerie Burns, “Building a Greenway in Boston,” PPS: Projects for Public Spaces, <https://www.pps.org/articles/buildgreenway-2/>

[Original Source: Great Parks/Great Cities: Providence (A publication on an Urban Parks Institute regional workshop, 1998)]

<sup>3</sup> MassDOT Highway Division, The Big Dig-Project Background, <http://www.massdot.state.ma.us/Highway/bigdig/projectbkg.aspx>

<sup>4</sup> Casey Ross, “Greenway planners shifting approach, Simplicity, open vistas finding favor, as major building projects fail,” *Boston Globe*, May 16, 2010 [http://www.boston.com/business/articles/2010/05/16/greenway\\_planners\\_shifting\\_approach/?page=1](http://www.boston.com/business/articles/2010/05/16/greenway_planners_shifting_approach/?page=1)

<sup>5</sup> Richard Armstrong, “BMW Guggenheim Lab: Live Press Conference,” October 1, 2010: <http://www.youtube.com/watch?v=bl0yzpmH3rA>