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Executive Director: Roland Whitley, Jr.

Mission

Community Technical Assistance, Inc. (CTA) mission as a New Jersey based 501(c)(3) non-profit organization is to provide technical assistance in low-to-moderate income neighborhoods in order for youth, residents, community-based and faith-based organizations to transform their distressed community.

Objective:

Our objective is to empower young citizens to create their own environments, improve their quality of life, and become leaders in their community.

To achieve our objective, CTA has established four (4) technical assistance sections.

- Community and Economic Development
- Public Health
- Housing and Neighborhood Stabilization
- Technical Assistance

TDC

Transforming Distressed
Communities Program



PROFESSIONAL FIELDS OF STUDY:
URBAN PLANNING
PUBLIC HEALTH

www.cta-us.com

TDC is an applied learning-based program that links the academic education of youth with hands-on real world community development projects.

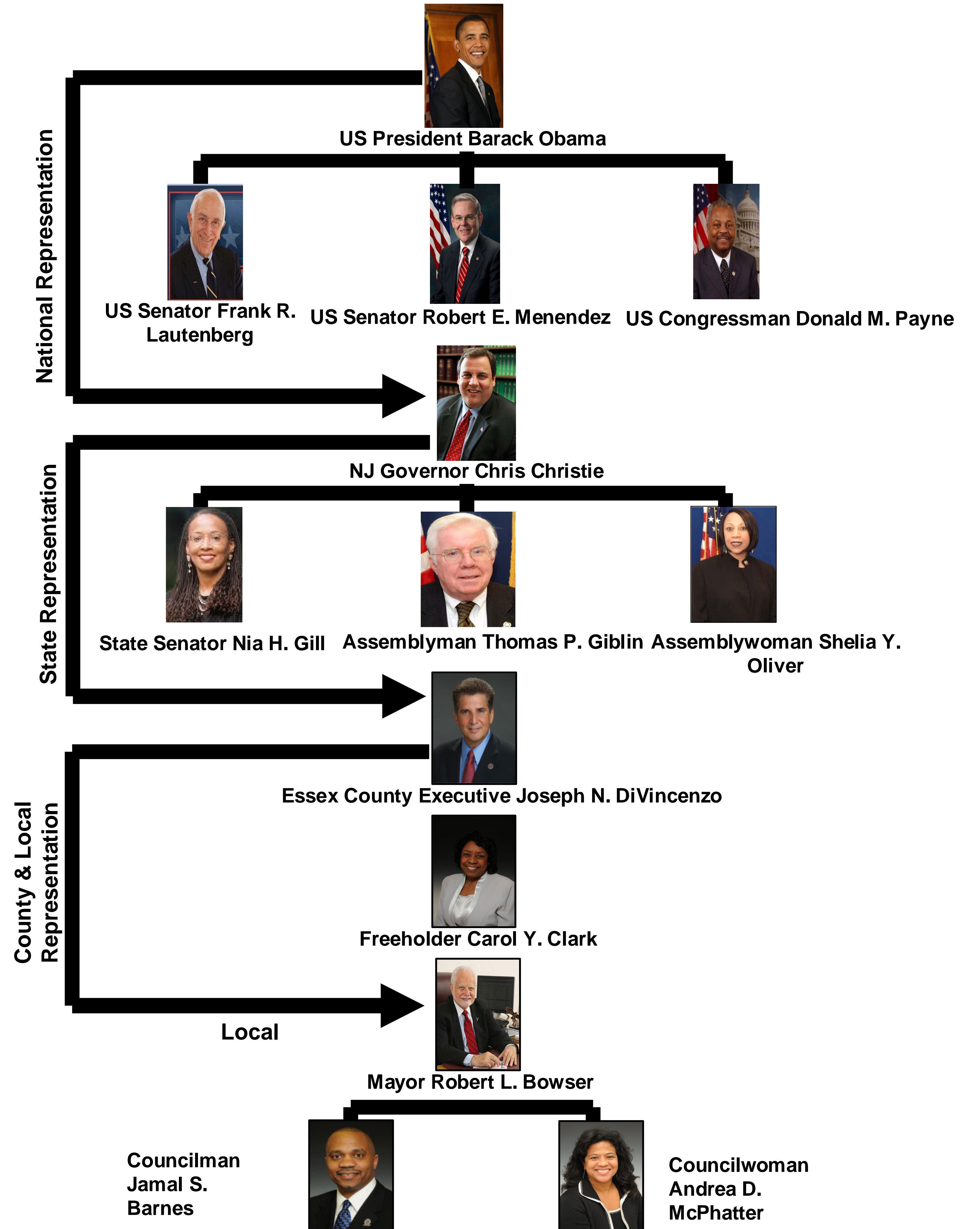
Community Technical Assistance, Inc.

7 Glenwood Avenue, Suite 407, East Orange, NJ 07017...Office (973) 395-0775...Fax (973) 395-1134...email: admin@cta-us.com

Geographical & Political Boundaries

Goal 1: Identify the Political Representatives & Possible Relationships to the Project Site

Objective: Present each political representative's district boundary, offices, committees, and possible relationships to your Project Site.



National Level

U.S. President Barack Obama (D)



Office: U.S. President
Total for State: 1
Total for Project Site: 1
District Boundary: United States of America

Federal office



The White House
1600 Pennsylvania Avenue NW
Washington, DC 20500

United States Map



Legend

- project site
- North Arrow
- New Jersey

Scale: NTS

Possible Relationship to project Site

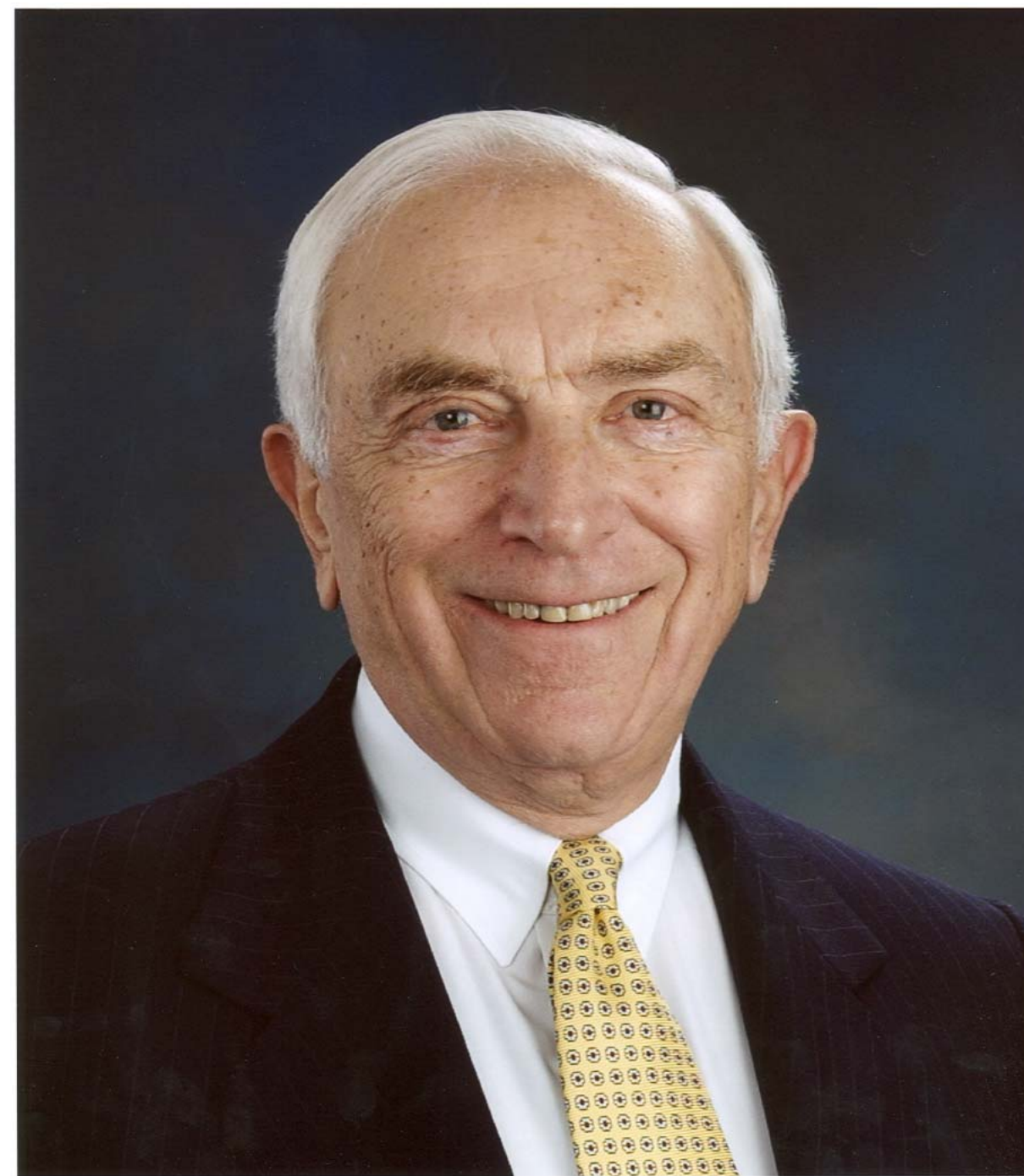
- Democratic presidential candidate Barack Obama unveiled his agriculture plan yesterday on the campaign trail in Iowa. The plan includes all kinds of proposals that the Obama camp hopes will excite rural Americans -- particularly those who reside in early-primary states.
- Obama's agriculture plans include increasing funding to help farmers transition to organic, reforming the USDA's crop-insurance program so it doesn't penalize organic farmers, requiring country-of-origin labeling on meat products, enforcing stricter pollution regulations for CAFOs (concentrated animal-feeding operations), increasing use of ethanol and other biofuels by requiring 60 billion gallons of biofuels in the nation's fuel supply by 2030, and limiting subsidies to huge agribusiness operations.
- "Too many family farmers are being squeezed as big agribusiness take up larger shares of federal subsidies, takes up more market share, manipulates prices and contracts, makes it harder for family farmers to control how they run their own farms,"

Sources:

- <http://maps.ask.com/maps?qsrc=167&o=0&>
- <http://en.wikipedia.org/wiki/File:WhiteHouseSouthFacade.JPG>
- <http://www.cubaheadlines.com/files/cubaheadlines.com/images/obama8.jpg>

National Level

U.S. Senator Frank R. Lautenberg (D)



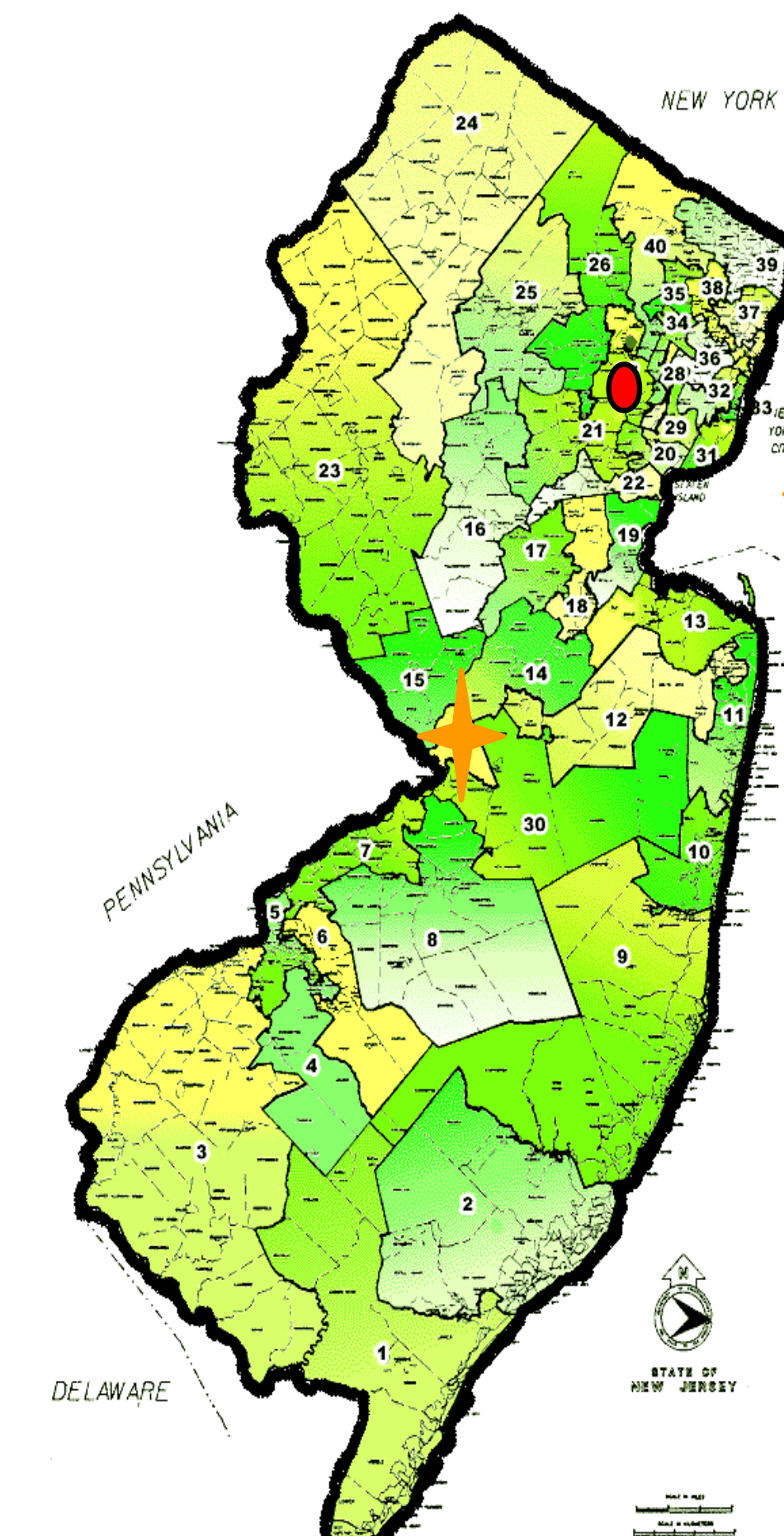
Office : U.S. Senator
Total For Nation : 100
Total For State : 2
Total For Project Site : 2
District Boundary : NJ

Hart Senate Building



324 HART SENATE OFFICE
BUILDING WASHINGTON DC
20510

New Jersey State Map



Legend

● Military Commons

★ Capital

↑ North Arrow

Scale: NTS

Possible Relationship To Project Site

- American Recovery & Reinvestment Act (ARRA) Was signed into law by President Obama in February of 2009
- Announced 2 million for preventive health & Wellness Initiatives
- \$1,168,266 funds will prevent chronic disease, promote wellness, provide positive sustainable health opportunities in communities throughout America, promote physical activity and nutrition
- Relation: Federal funding from the American Recovery & Reinvestment Act (ARRA) to reduce obesity, increase physical activity & improve nutrition

<http://www.senate.gov/genhttp://factfinder.census.gov>

<http://factfinder.census.gov/>

<http://www.google.com/images>

National Level

U.S. Senator Robert Menendez (D)



Office: U.S. Senator
Total For Nation: 100
Total For State: 2
Total For Project Site: 2
District Boundary: New Jersey

Hart Senate Building



528 HART SENATE
OFFICE BUILDING
WASHINGTON DC
20510

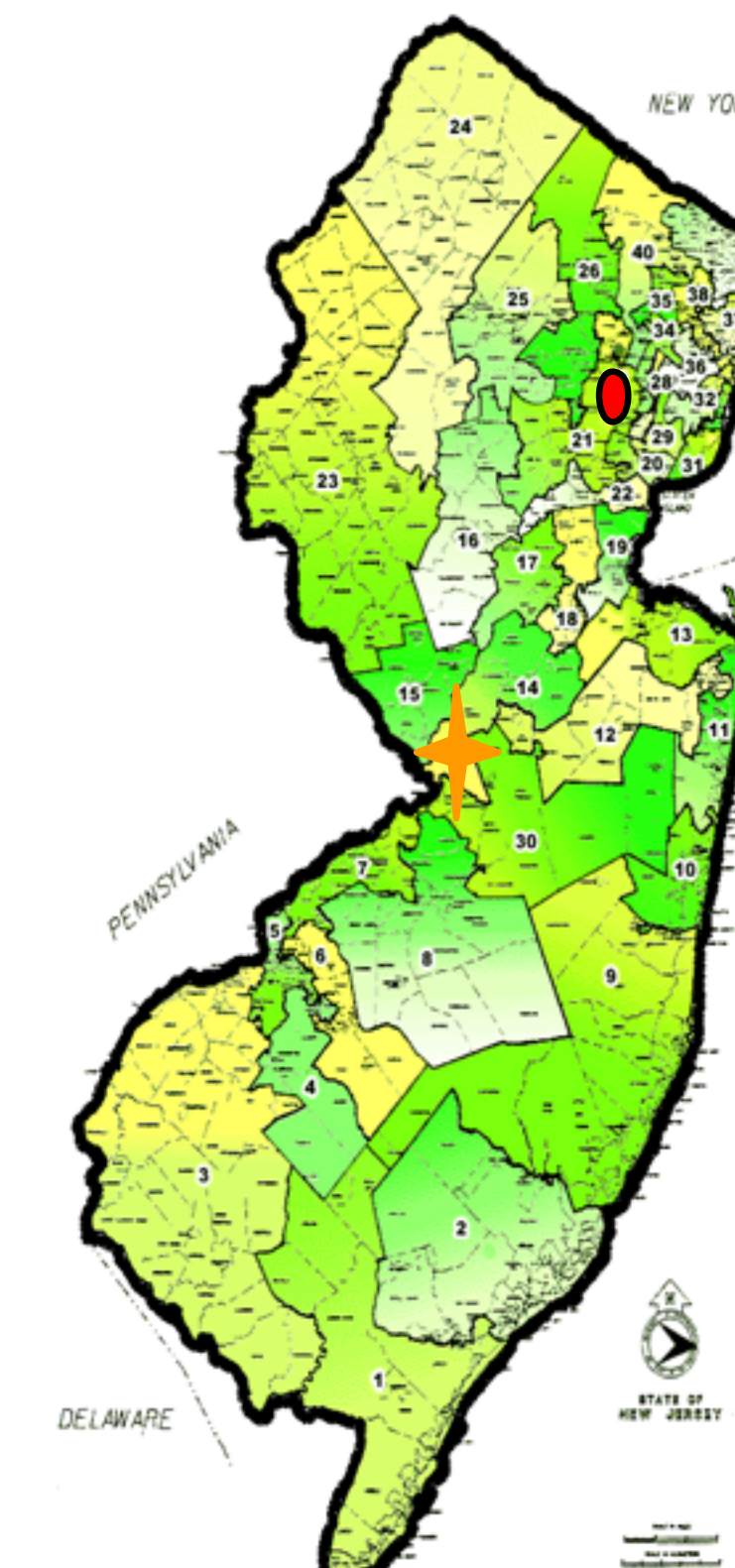
Possible Relationships to Project Site:

- Announced an estimated \$1.9 million in funding for key agriculture projects in New Jersey
- Helped secure a total of \$1,286,000 in funding for the following projects in New Jersey: FY2010 Agriculture , Rural Development, and Related Agencies Appropriations Act
- Granted a total of \$656,610 million for the FY2009 Specialty Crop Block Grant Program
- Relation: These investments are meant to promote farming and conservation efforts in New Jersey. The investments also help keep our farms economically viable and help keep our families healthy with fresh food grown locally. Appropriations allocate (assign) federal funds to the numerous government agencies, departments, and organizations on an annual basis.



Senator Menendez and CTA Student Intern (Joseph Little John)

New Jersey State Map



Legend

Military Commons

Capital

North Arrow

Scale: NTS

Sources:

- <http://factfinder.census.gov/servlet/MapItDrawServlet>
- http://www.senate.gov/general/contact_information
- <http://www.google.com/images>

National Level

U.S. Congressman Donald M. Payne (D)



Office: U.S. Congressman
Total for State: 13
Total for Nation: 435
Total for Project site: 1
District Boundary: Congressional District 10

Possible Relationship to Project Site:

- Building upon the momentum of its public health initiatives, the Congressional Black Caucus Foundation (CBCF) will launch its Spirit of Healthy Living (SOHL) program, a diabetes awareness
- Rep. Payne is taking the helm as CBCF is expanding its brand and stands on solid financial ground.

The Rayburn House

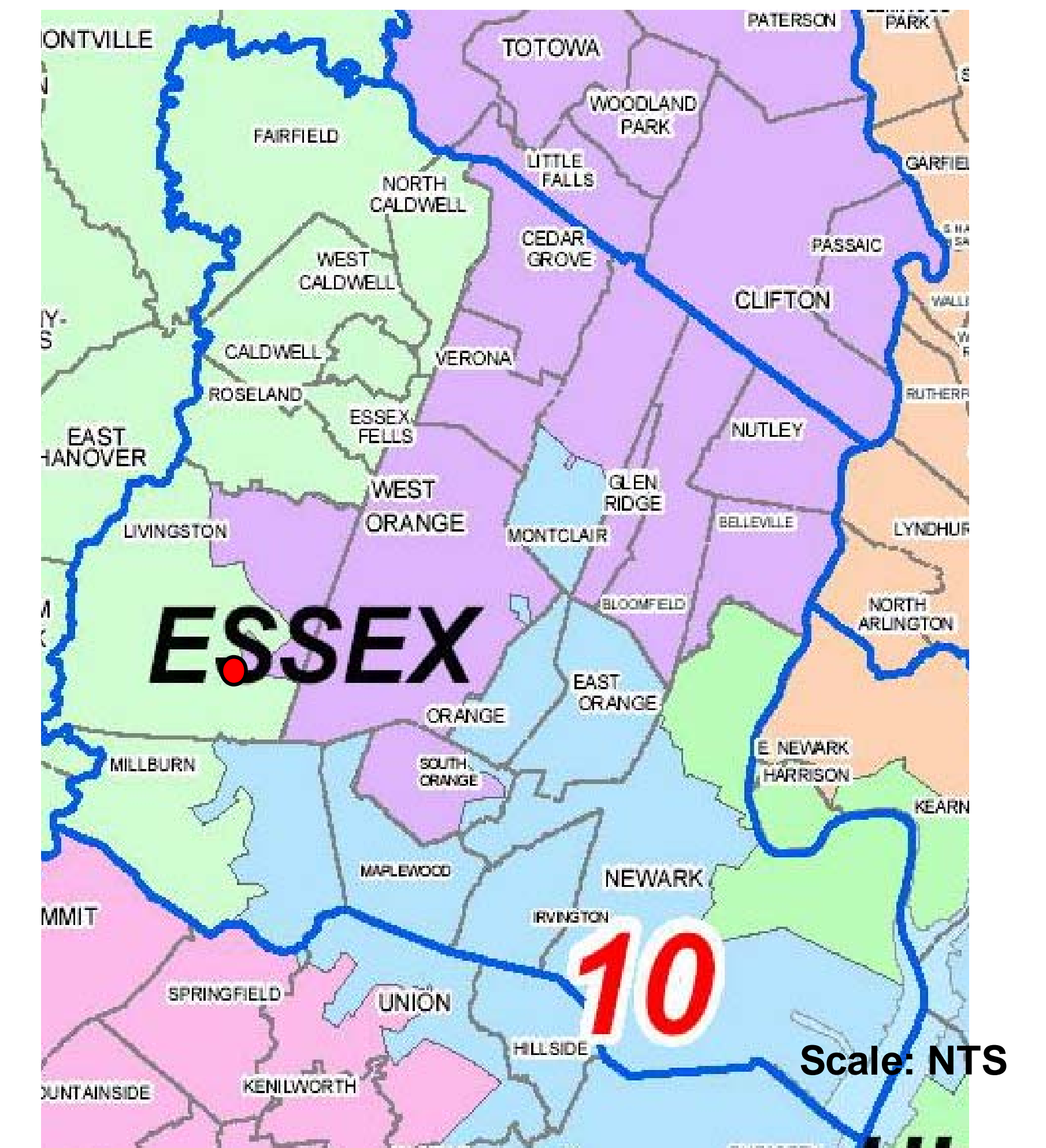


Independence Avenue and
South Capitol Street
Washington, DC 20003

Legend

- PROJECT SITE
- ESSEX COUNTY
- ↑ NORTH ARROW

10th Congressional District Map



Congressman Payne and Student Interns

<http://www.govtrack.us/congress/findyourreps.xpd?state=NJ&district=10>
<http://www.cbfcinc.org/2010-archive/448-cbcf-brings-spirit-of-healthy-living-to-newark.html>

State Level

Assemblywoman Shelia Y. Oliver (D)



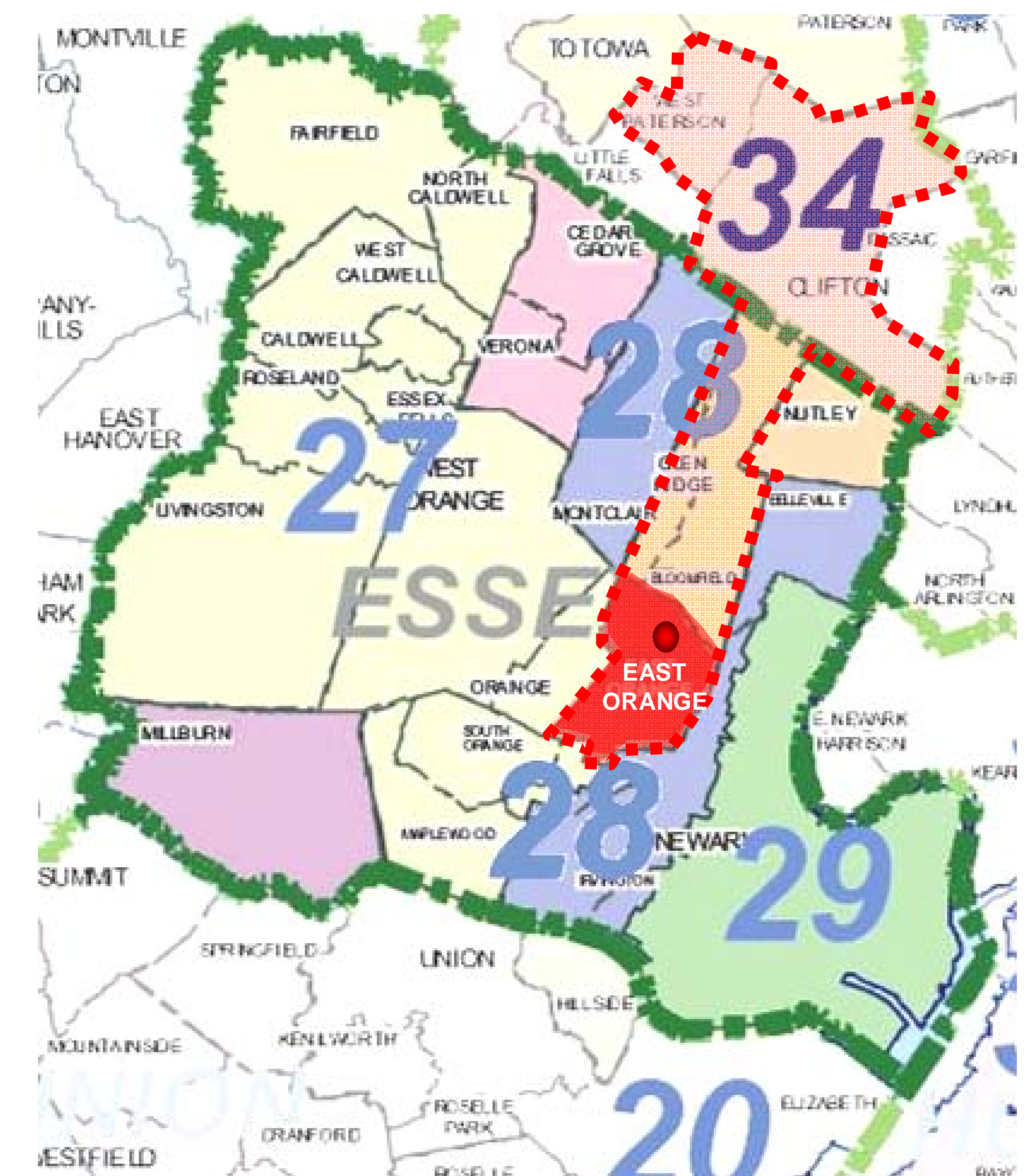
Office for state: 80
Total for project site: 2
District boundary: 34

Federal Office



East Orange, NJ 07018
15-33 Halsted Street
Suite 202

Legislative district 34



LEGEND

- East Orange
- Study Area
- 34th District

Possible Relationship to Project Site:

- Assembly Speaker
- Dedicates \$20million annually in realty transfer fee revenues to pay for development, improvement, and repair of state parks, forest, recreation area, historic sites natural areas and fish and wildlife areas
- Requires use of highest appraisal value as offer price Green Acres and farmland preservation programs
- Encourages purchase of “Jersey Fresh and other NJ agricultural products by State agencies, departments and facilities
- Transfers administration of certain nutrition programs to Department of Agriculture

State Level

Assemblyman Thomas P. Giblin



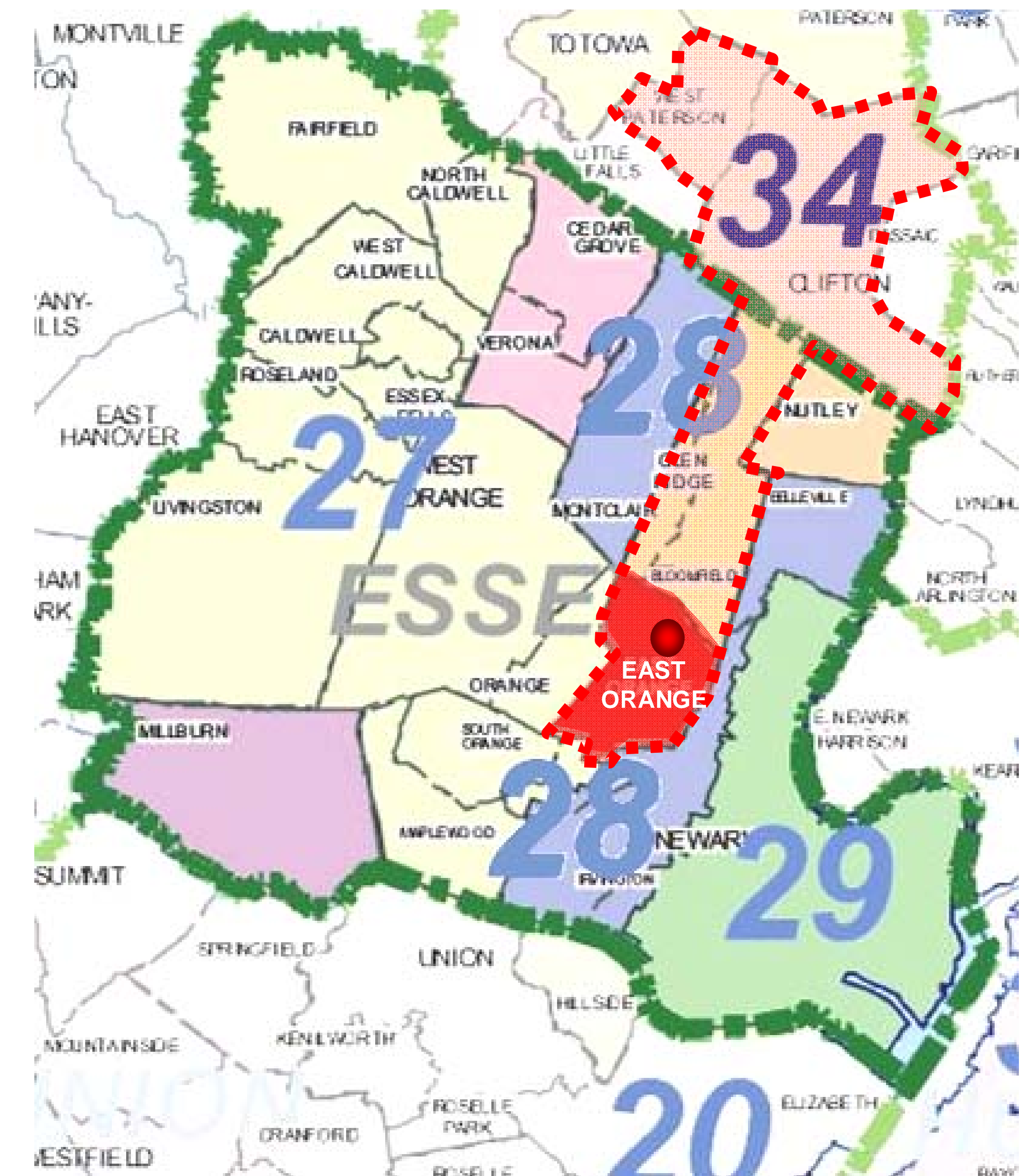
Office for state: 80
Total for project site: 2
District boundary: 34

Federal Office



1333 Broad Street Office Clifton, NJ

Legislative District 34



LEGEND

- East Orange
- Study Area
- 34th District

Possible Relationship to Project Site

•A1098, "Green Job" Authorizes county colleges and county vocational school districts to establish green job certification programs. This bill states that counties have the right to develop and establish a green jobs certification program. The designated county vocational school district shall provide needed skills, develop training programs, and train workers for green jobs in one or more industries including, but not limited to, energy efficient building, construction and retrofits, renewable electric power, energy efficient vehicles, bibfuls, and manufacturing that produces sustainable products and uses sustainable processes and materials.

•Although Campus 9 is not a vocational school, other vocational schools can take advantage of this bill. Such as Bloomfield Tech Newark Tech, Newark Vocational, North 13th, West Caldwell Tech

County Level

Freeholder Carol Y. Clark (D)



Office: Board of Chosen Freeholders
Total For State: 9
Total For Project Site: 1
District Boundary: District 3

Freeholder Office



Hall of Records- Room 405
465 Dr Martin Luther King Jr. Blvd
Newark, NJ 07102

Essex County Map



Legend

-  District 3
-  Project Site

Possible Relationship to the Project Site:

- Director of Community Affairs and Public Relations
- Board Member Health Care/Health Benefits

Sources:

<http://www.essex-countynj.org/freeholders/site/index.php?section=c>
<http://www.resurgencecity.org/>

Local Level

Mayor Robert L. Bowser (D)



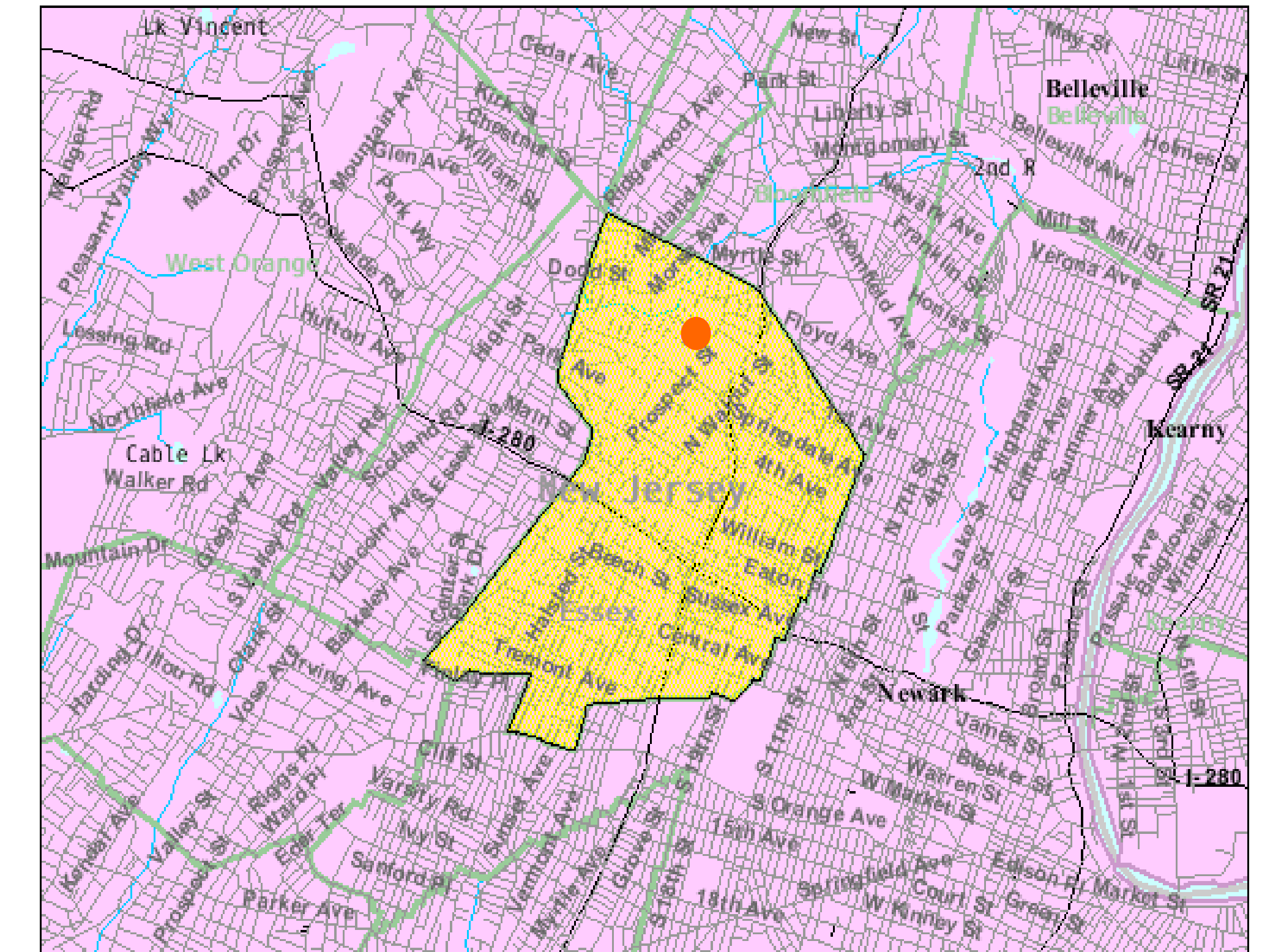
Office: Mayor of East Orange
Total for State: 37
Total for Project Site: 1
District Boundary: City of East Orange

City Of East Orange City Hall



44 City Hall Plaza, East Orange, NJ 07017-4191

Map of East Orange

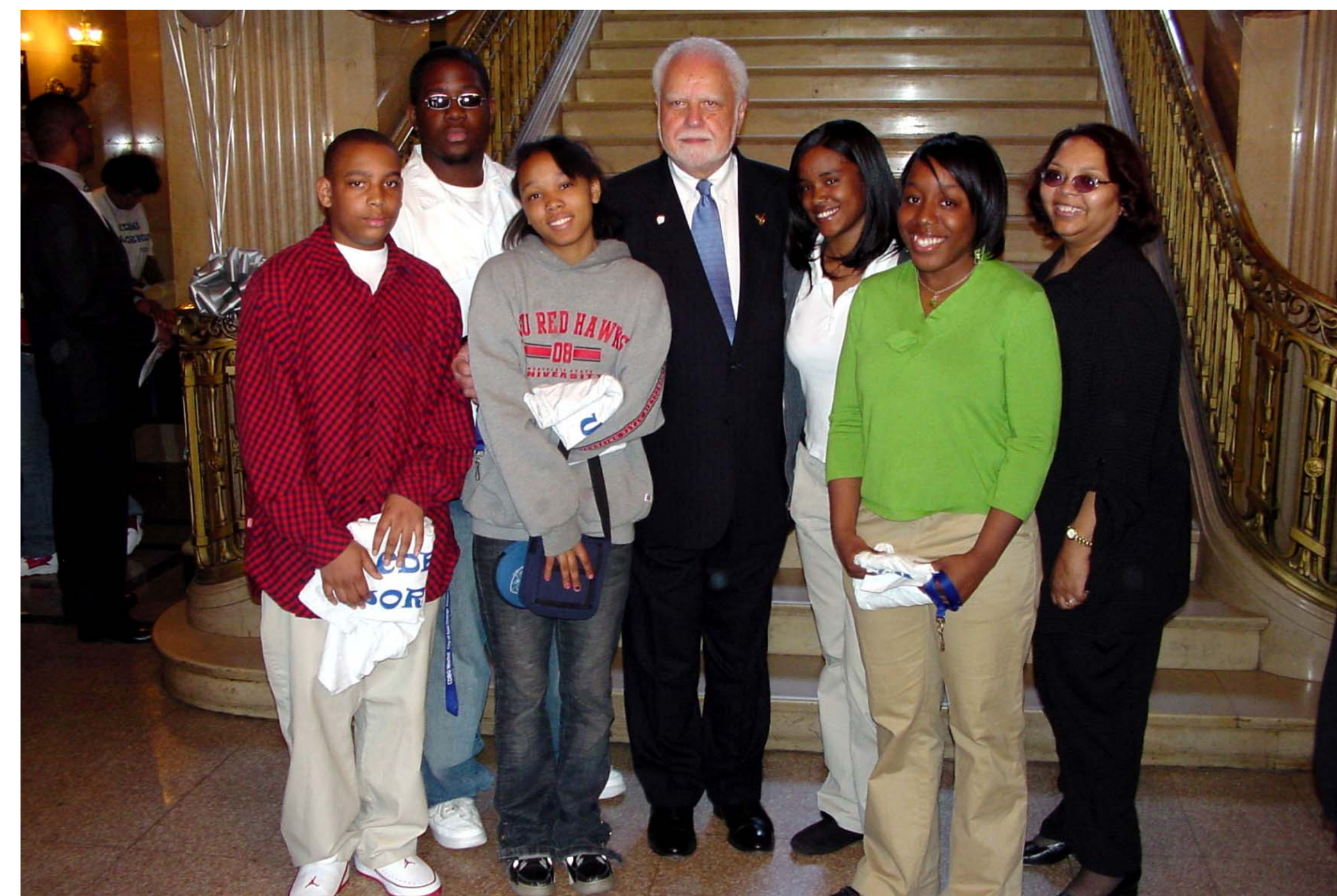


Legend

- City of East Orange
- Project Site

Possible Relationship to the Project Site:

- Supported the TDC Program for the last 5 Years
- Robert L. Bowser is the president of NCBM (National Conference of Black Mayors) which provides culturally appropriate educational materials about exercise, fitness, obesity.



Sources:

- http://www.njslom.org/magart_0108_p4.html
- http://en.wikipedia.org/wiki/File:East_Orange_City_Hall_Lincoln_jeh.jpg
- http://upload.wikimedia.org/wikipedia/en/c/c8/Census_Bureau_map_of_East_Orange,_New_Jersey.gif



Goal:

To reduce poor nutrition and chronic diseases caused by overweight and obesity by increasing the intake of fresh fruits and vegetables

Objectives :

- 1- To review the New Jersey Strategic plan and Healthy People 2010 to establish the need for the increase of the intake of fresh fruits and vegetables that lower chronic diseases
- 2- To collect data from YRBSS to assess overweight and obesity levels in the 9th grade community
- 3- To look at case studies that relate to the increase of nutrition and the reduction of overweight and obesity



Sources:

CTA Public Health Intern Training Manual 2007

http://www.cdc.gov/DHDSP/library/action_plan/full_sec2_core_functions.hti

Public Health Objective 1:

To review the New Jersey Strategic plan and Healthy People 2010 to establish the need for the increase of the intake of fresh fruits and vegetables that lower chronic diseases



Healthy People 2010 is a set of health objectives for the nation to achieve over the first decade of the new century

Significant Findings:

- Too much consumption of saturated fat
- Too little vegetables and fruits intake
- To reduce chronic diseases associated with overweight and obesity

Connecting Goal:

Improve health, fitness, and quality of life through the intake of fresh vegetables.

Sources:

Chapter 19, Nutrition and Overweight, Healthy People 2010

<http://www.healthypeople.gov/>

Chapter 19. Nutrition and Overweight

Goal: Promote health and reduce chronic disease associated with diet and weight.

Objectives

Weight Status and Growth

19-3. *Overweight or obesity in children and adolescents*

- Reduce the proportion of children and adolescents who are overweight or obese.

Food and Nutrient Consumption

19-5. *Fruit Intake*

- Increase the proportion of persons aged two years and older who consume at least two daily serving of fruit.

19-6. *Vegetable Intake*

- Increase the proportion of persons aged two years and older who consumed at least 3 daily servings of vegetables, with at least one-third being dark green or orange vegetables.

Schools, Worksites, and Nutrition Counseling

19-15. *Meals and Snacks at School*

- (Developmental) Increase the proportion of children and adolescent age six to nineteen years whose intake of meals and snacks at school contributes to a good overall dietary quality.

Food Security

19-18. *Food Security*

- Increase food security among U.S households and in so doing reduce hunger.

Sources:

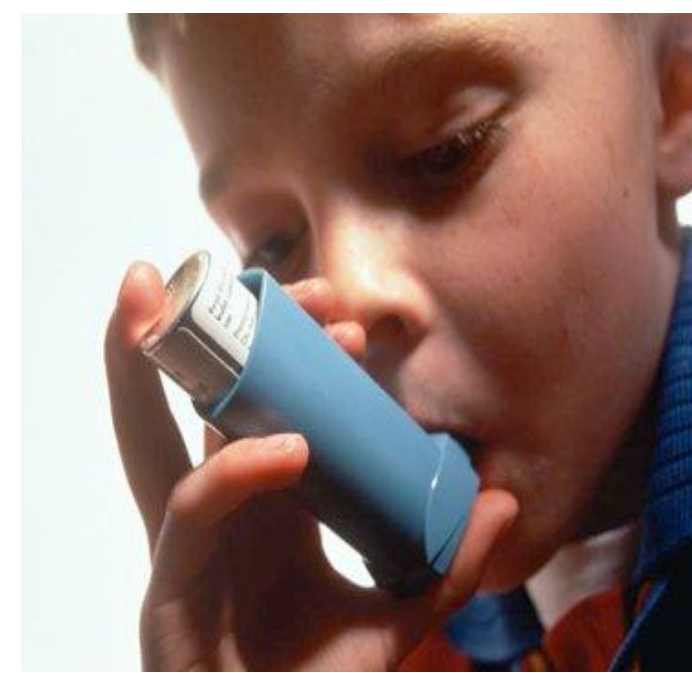
Chapter 19, Nutrition and Overweight, Healthy People 2010

Weight Status and Growth

19-3. Overweight or obesity in children and adolescents

- Reduce the proportion of children and adolescents who are overweight or obese

Listed below are the chronic (lifelong) diseases associated with overweight and obesity



Asthma



High Blood Pressure



Diabetes



Heart Disease and Stroke

Food and Nutrient Consumption

19-6 Vegetable Intake

-Increase the proportion of persons age 2 years and older who consumed three daily serving of vegetables with at least 1-3 being dark green or orange vegetable

Vegetables associated with the reduction of Chronic Diseases

Tomatoes



Reduces the risk of:

- Cancer
- Cardio Vascular Disease
- Asthma

Green beans



Reduces the risk of:

- Asthma

Corn



Reduces the risk of:

- Cardio vascular Disease
- Diabetes
- Breast cancer

Butter Beans

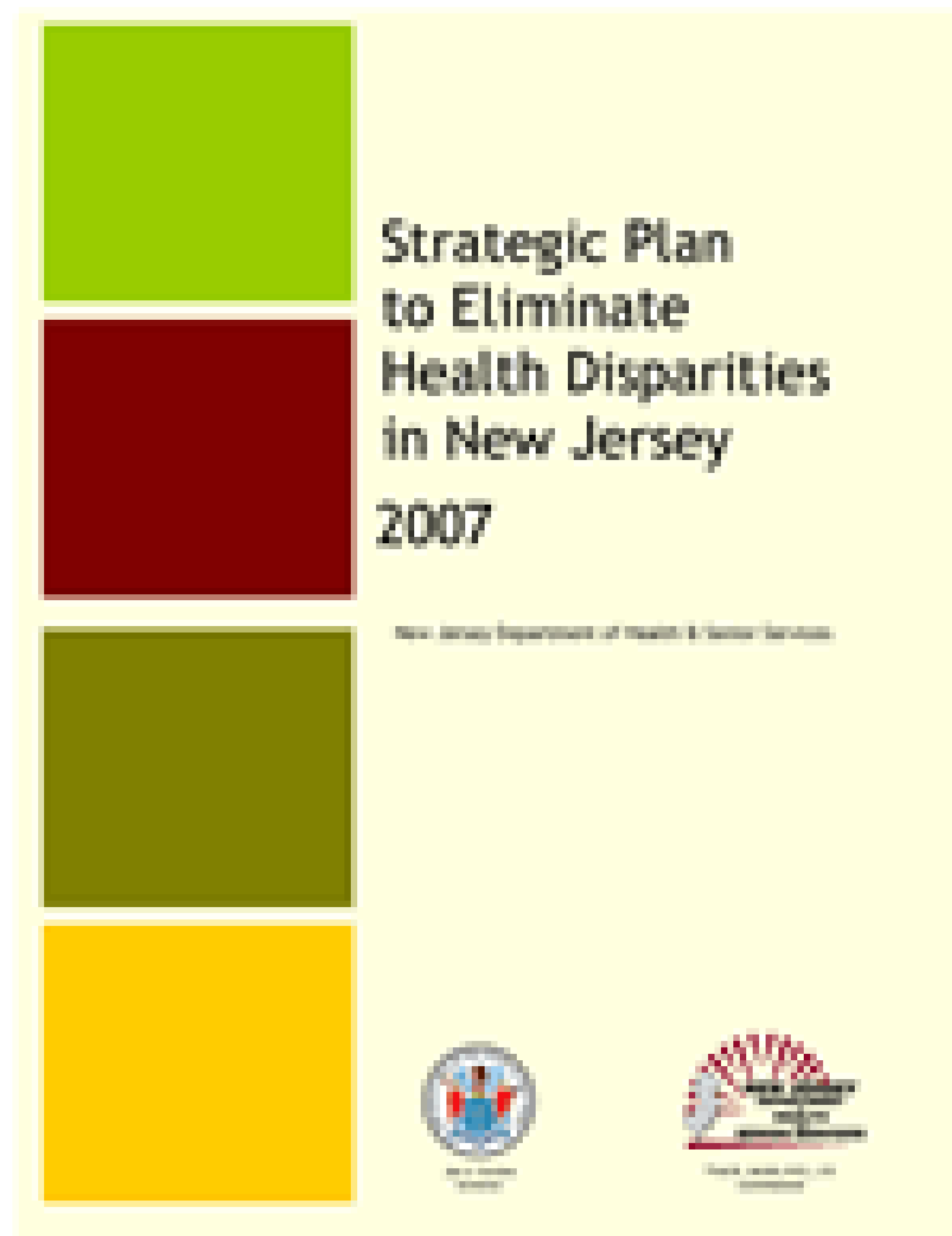


Reduces the risk of:

- Certain types of cancers
- Cardio Vascular Disease
- Type 2 Diabetes

Public Health Objective 1:

To review the New Jersey Strategic plan and Healthy People 2010 to establish the need for the increase of the intake of fresh fruits and vegetables that lower chronic diseases



The Strategic Plan to Eliminate Health Disparities is a roadmap guiding comprehensive effort to reduce, and ultimately end health disparities.

The plan was made by the New Jersey Department of Health and Senior Services.

Connecting Goal:

To decrease disparities in obesity and increase healthy eating and lower health risks

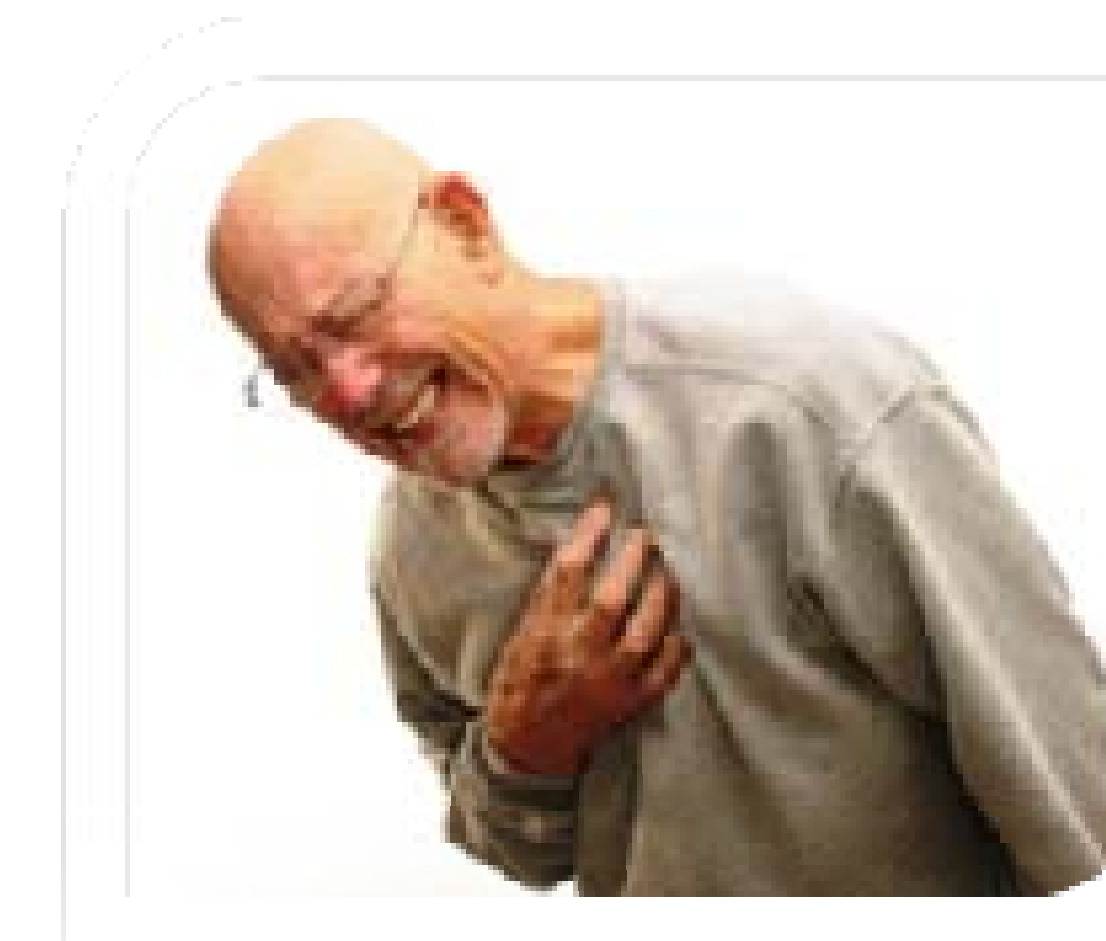
Sources:

<http://www.nj.gov/health/omh/plan/index.shtml>



Obesity

Adult obesity is the highest among black and Hispanic and Asian and Pacific Islanders. Incidence and death rates are highest among blacks.



Cardiovascular Disease

Blacks have the highest death rates from heart disease and from stroke.



Diabetes

The prevalence of the disease is highest among blacks. Death are 2 times more likely among blacks and blacks are more likely than any other group to develop end stage renal disease or have a lower limb amputated as a result of the disease.

Sources:

The Strategic Plan to Eliminate Health Disparities in New Jersey 2007

<http://www.nj.gov/health/omh/plan/index.shtml>

BMI (Body Mass Index)- The measurement of choice as an indicator of healthy weight, overweight and obese

How to Calculate your BMI?

Weight (Pounds) × 704.5

Height (Inches²)

Healthy Weight	Overweight	Obese
BMI of 17.6 -24.9	BMI of 25-29.9	BMI of 30-99.8

*** Can you identify the BMI category of each student?**

Public Health Objective 2:

To collect data from YRBSS to assess overweight and obesity levels of the 9th grade community



YRBSS contains statistical data on the percentages of overweight and obese 9th graders

Data Variables:

- Nation
- State
- 9th Grade Obese Students
 - o Gender
 - o Race

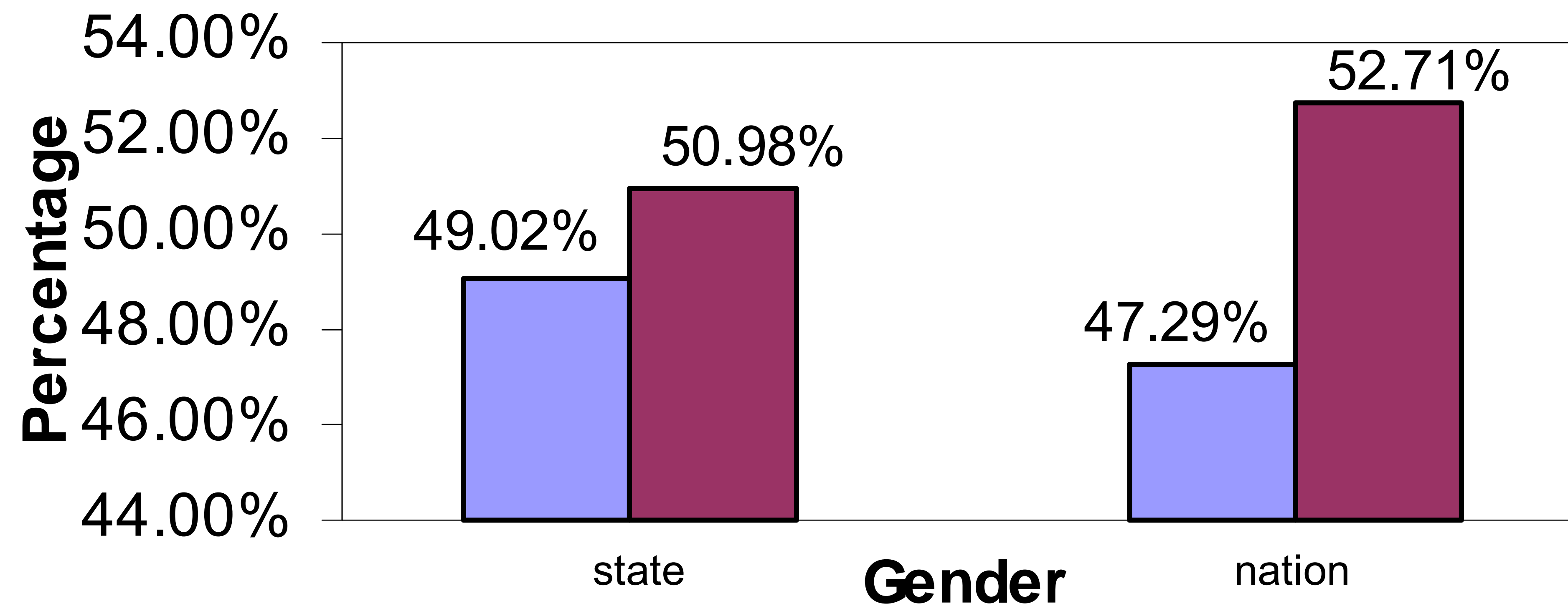


YRBSS

Gender	9th Grade for State	Percentage for State	9th Grade for Nation	Percentage for Nation
Male	1,843	49.02%	183	47.29%
Female	1,917	50.98%	204	52.71%
Total	3,760	100%	387	100.00%

2009 YRBSS Obese 9th Grade Students

■ Male
■ Female



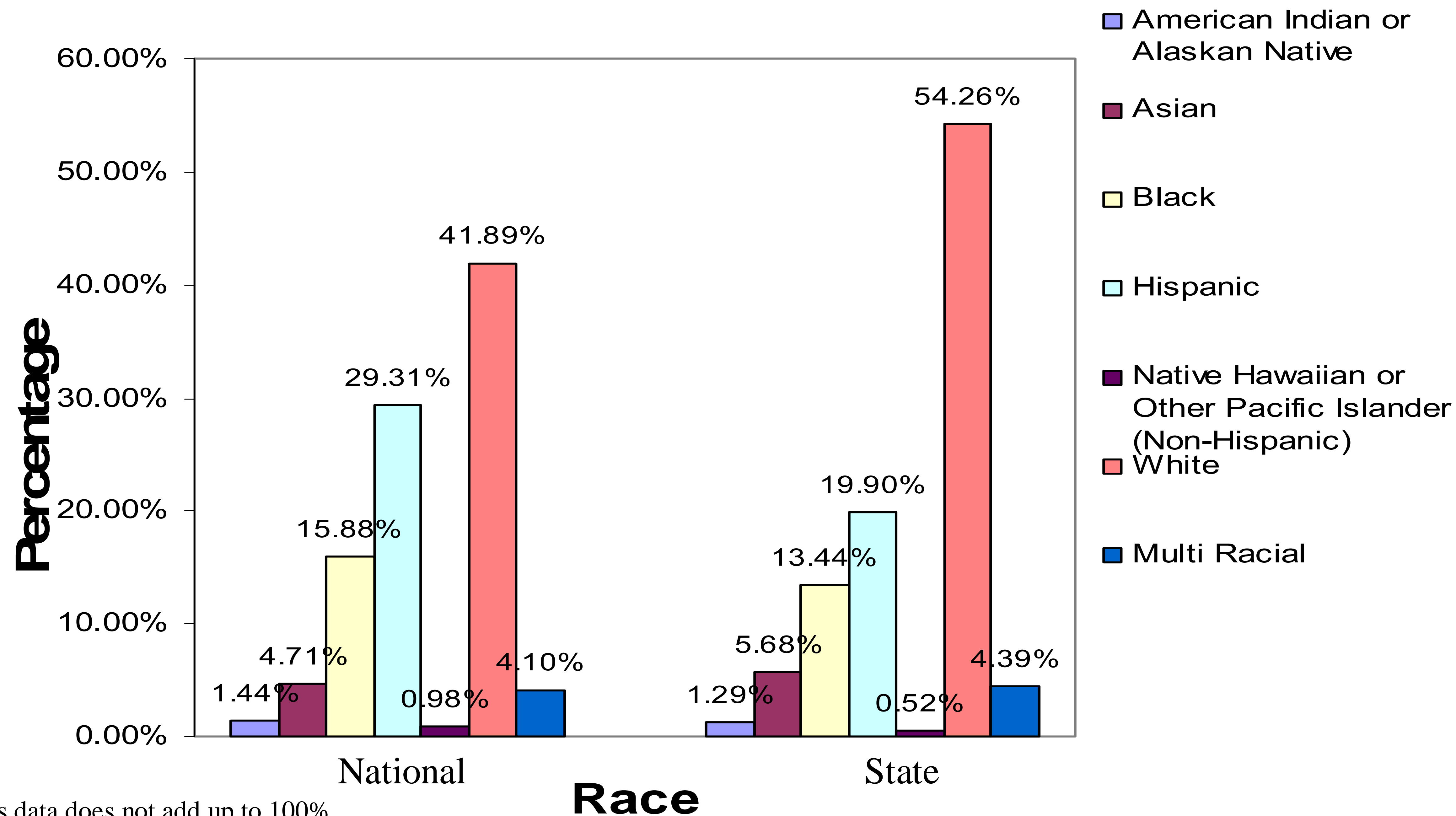
Significant Findings: There are about or close to 50% of both males and females who are obese in the 9th grade on a national and state level

Relationship to the Project Site: Public Health is studying obesity in children and adolescents

YRBSS

Race	9th Grade for State	Percentage for State	9th Grade for Nation	Percentage for Nation
American Indian or Alaskan Native	5	1.29%	54	1.44%
Asian	22	5.68%	177	4.71%
Black	52	13.44%	597	15.88%
Hispanic	57	19.90%	1,102	29.31%
Native Hawaiian or Other Pacific Islander (Non-Hispanic)	2	0.52%	37	0.98%
White	210	54.26%	1,575	41.89%
Multi Racial	17	4.39%	154	4.10%
Total	387	100%	3,760	* 98.30%

2009 YRBSS Obese 9th Grade Students



Significant Findings:
Next to Whites, Hispanics and Blacks are the most obese on both the national and state level

Relationship to the Project Site: Our project site is located in a community where there are mostly Blacks and Hispanics in the community and schools

* This data does not add up to 100%

Population Characteristics

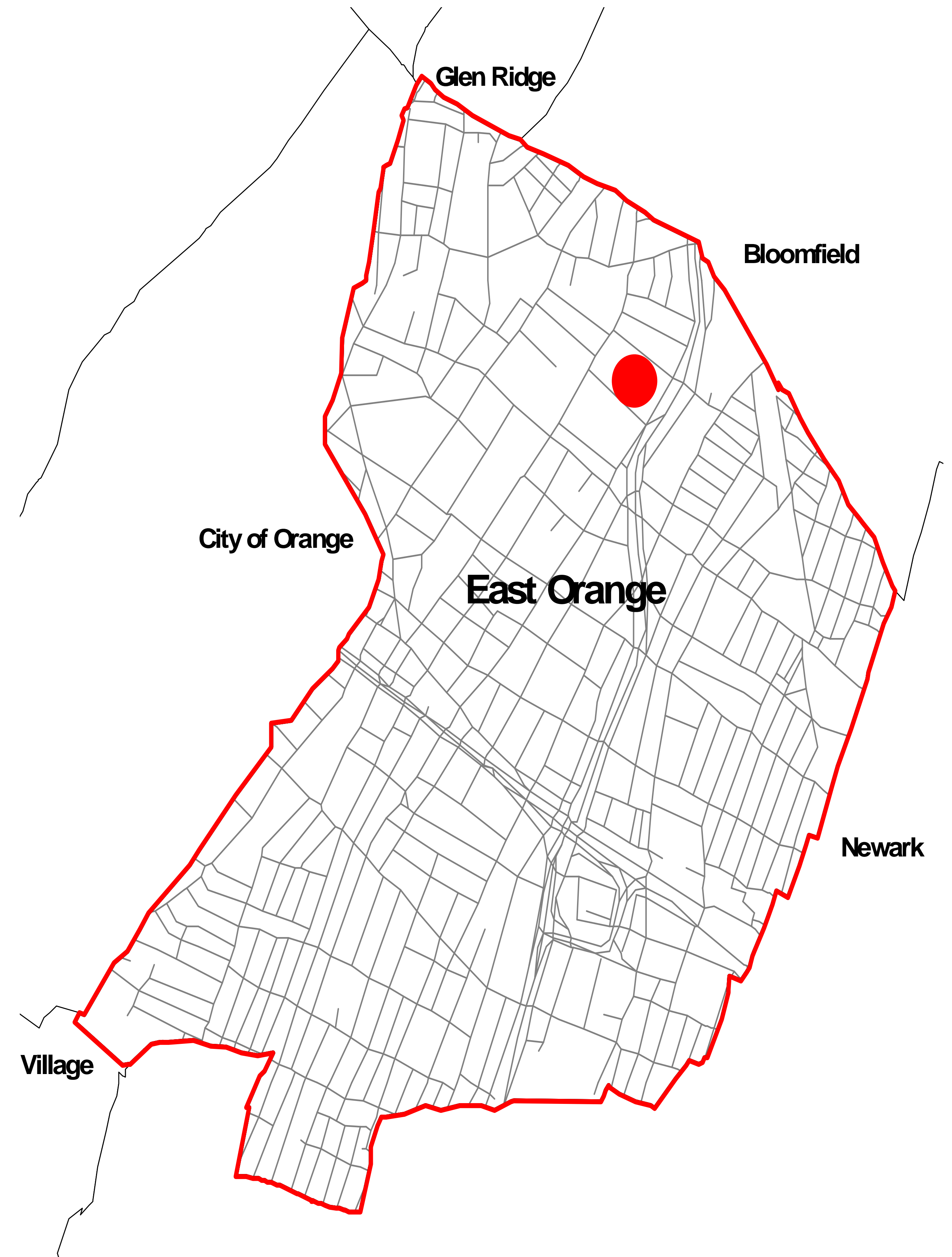
Goal : Identify the People who will be impacted by the project

Objectives:

- Create a Study Area Map
- Identify Population Characteristics from the U.S. Census Bureau (2000 data) by using social variables

Social:

- Total Population, Age Distribution, & Racial Distribution



Study Area Boundaries

North: Bloomfield, Glen Ridge, & Montclair

South: South Orange & Irvington

East: Newark

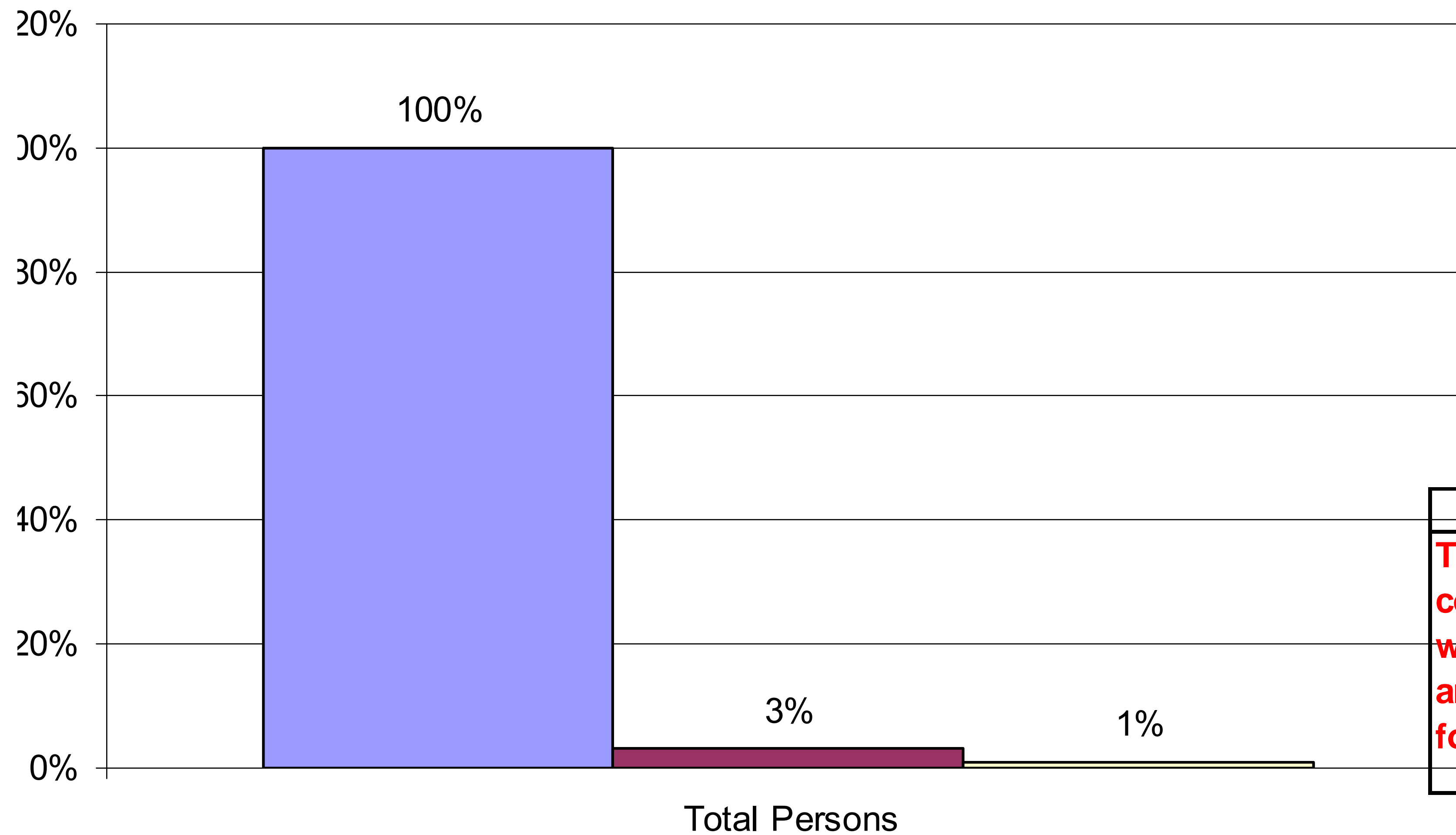
West: Orange & West Orange

Total Population

		United States Percentage of the Nation		New Jersey Percentage Of the Nation		City of East Orange Percentage of the State
Total Population (2000)	United States		New Jersey		City of East Orange	
Total Persons	281,421,906	100%	8,414,350	3%	69,904	1%

Total Population

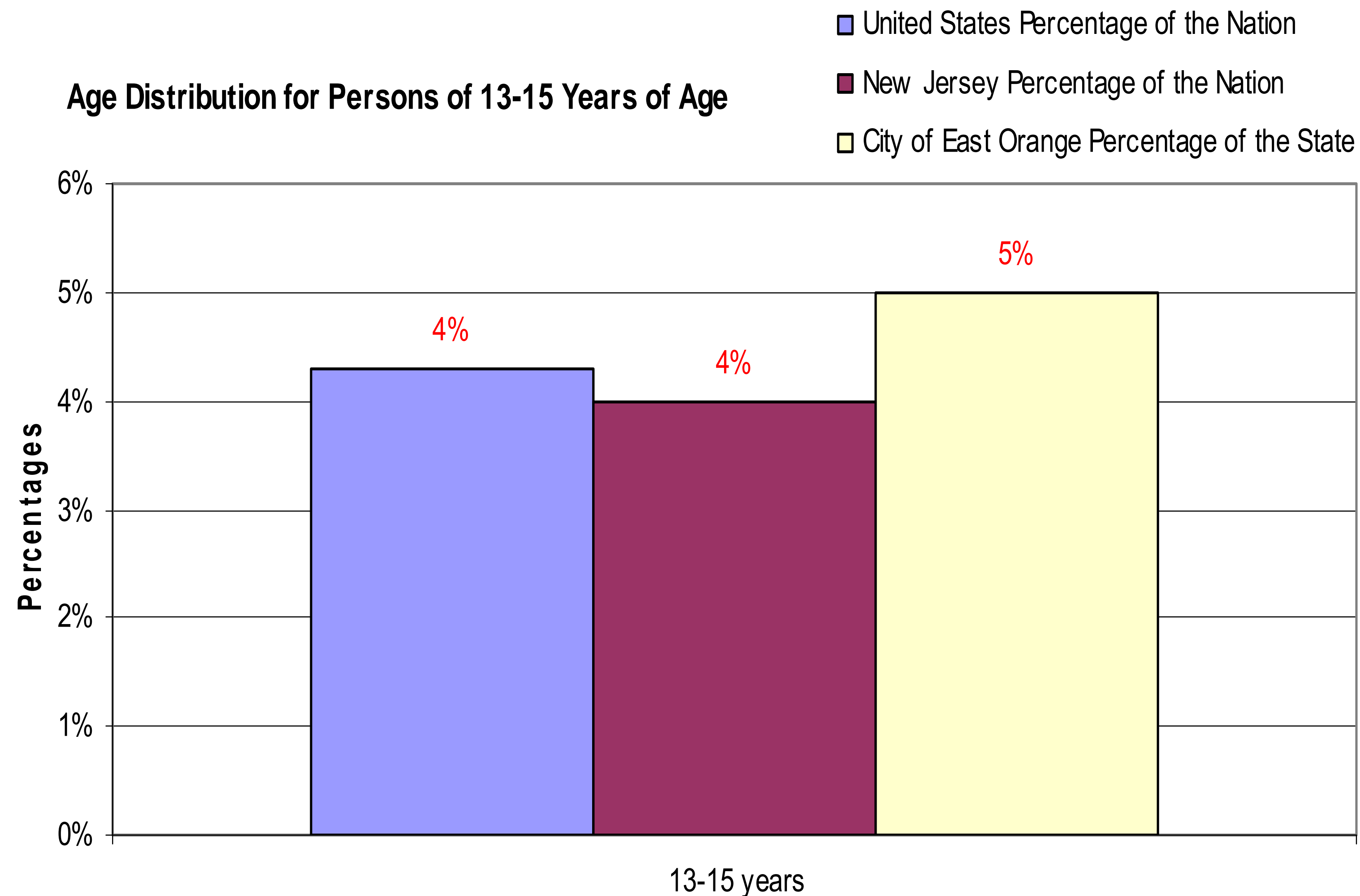
- United States Percentage of the Nation
- New Jersey Percentage Of the Nation
- City of East Orange Percentage of the State



Significant Finding	Goal	Solution
The City of East Orange contains 69,904 people within 3.9 square miles and creates less space for horizontal farming	Introduce an alternative type of farming	Create spaces within the city of East Orange that allows agriculture which promotes healthy eating

Age Distribution for Persons of 13-15 Years of Age

Age Distribution for Persons of 13-15 years of Age	United States	United States Percentage of the Nation	New Jersey	New Jersey Percentage of the Nation	City of East Orange	City of East Orange Percentage of the State
Under 1	3,827,009	1%	110,878	1%	1,273	2%
1-2 years	7,518,721	3%	219,259	3%	1,997	3%
3-4 years	7,701,024	3%	227,945	3%	2,377	3%
5-6 years	8,003,836	3%	237,520	3%	2,270	3%
7-12 years	25,101,288	9%	736,332	9%	6,591	9%
13-15 years	12,101,951	4%	336,261	4%	3,227	5%
16-18 years	11,914,174	4%	314,882	4%	2,815	4%
19-29 years	42,254,508	15%	1,109,432	13%	11,073	16%
30-39 years	43,448,450	15%	1,376,526	16%	10,935	16%
40-49 years	43,003,261	15%	1,339,516	16%	9,347	13%
50-54 years	17,397,482	6%	543,606	6%	3,943	6%
55-65 years	24,171,230	9%	749,158	9%	6,125	9%
65+ years	34,978,972	12%	1,113,035	13%	7,931	11%
Total Persons:	281,421,906	100%	8,414,350	100%	69,904	100%



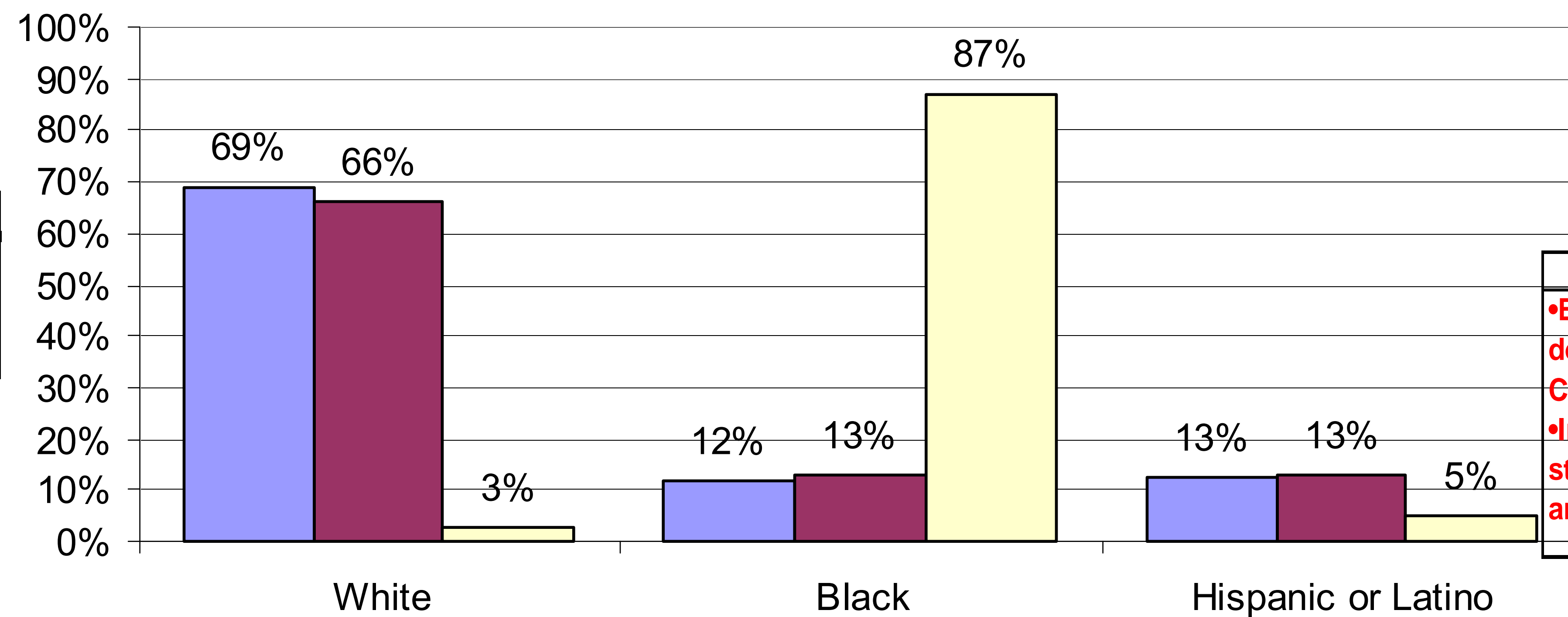
Significant Finding	Goal	Solutions
<ul style="list-style-type: none"> 9th graders in the age group of 13-15 year olds make up 5% of the City of East Orange's population Also in the United States and New Jersey the age group of 13-15 year olds makes up 4% of the population 	Address nutrition and healthy eating amongst the age group of 13-15 years of age in the United States, New Jersey, and the City of East Orange	<ul style="list-style-type: none"> Raise awareness of obesity among 9th graders Incorporate healthy eating in all schools meals (breakfast,lunch,snacks) Introduce nutrition to vending machines in all schools

Racial Distribution by Non Hispanic or Latino Origin

Racial Distribution	United States	United States Percentage of the Nation	New Jersey	New Jersey Percentage of the State	City of East Orange	The City of East Orange Percentage of the City
Non Hispanic or Latino	246,183,425	87%	7,298,201	87%	66,609	95%
White	194,514,140	69%	5,554,478	66%	2,103	3%
Black	33,707,230	12%	1,085,330	13%	61,147	87%
American Indian	2,091,206	1%	11,798	0.14%	226	0.32%
Asian	10,067,813	4%	478,645	6%	266	0.38%
Others	5,803,036	2%	167,950	2%	2,867	4%
Hispanic or Latino	35,238,481	13%	1,116,149	13%	3,295	5%
Total:	281,421,906	100%	8,414,350	100%	69,904	100%

Racial Distribution by Non Hispanic or Latino Origin

■ United States Percentage
■ New Jersey Percentage
■ City of East Orange Percentage



Significant Finding	Goal	Solution
<ul style="list-style-type: none"> Blacks are the dominant race in the City of East Orange Incomparison to the state and nation, Whites are the dominant race 	Address and inform Whites, Blacks, and Hispanics about Nutrition and healthy eating	Raise Awareness about Nutrition and healthy eating

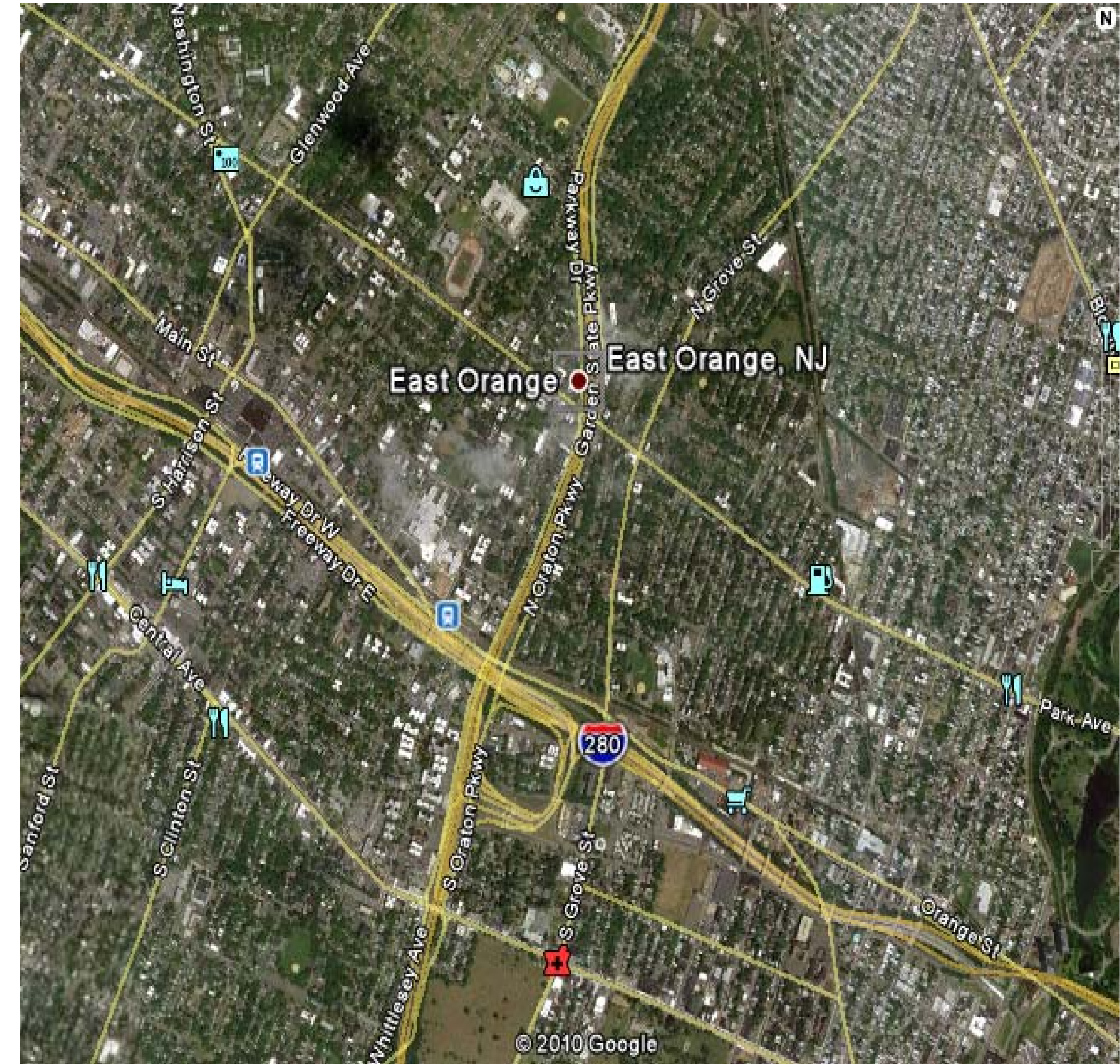
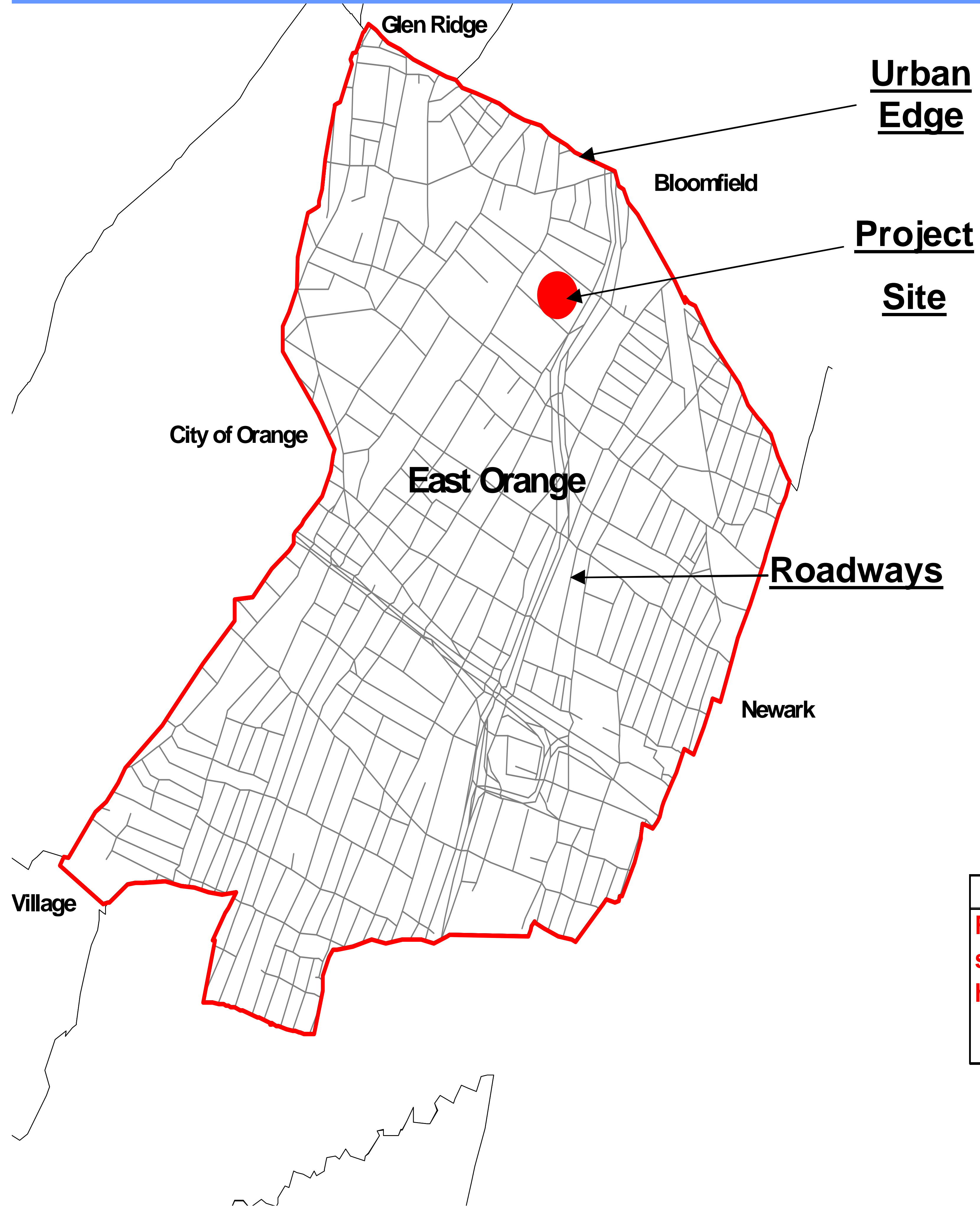
Goal: To Understand the Urban Environment

Objective:

- Identify the Urban Context
- Identify the different land uses and how they have an impact on the project site
- Review and analyze the zoning ordinance

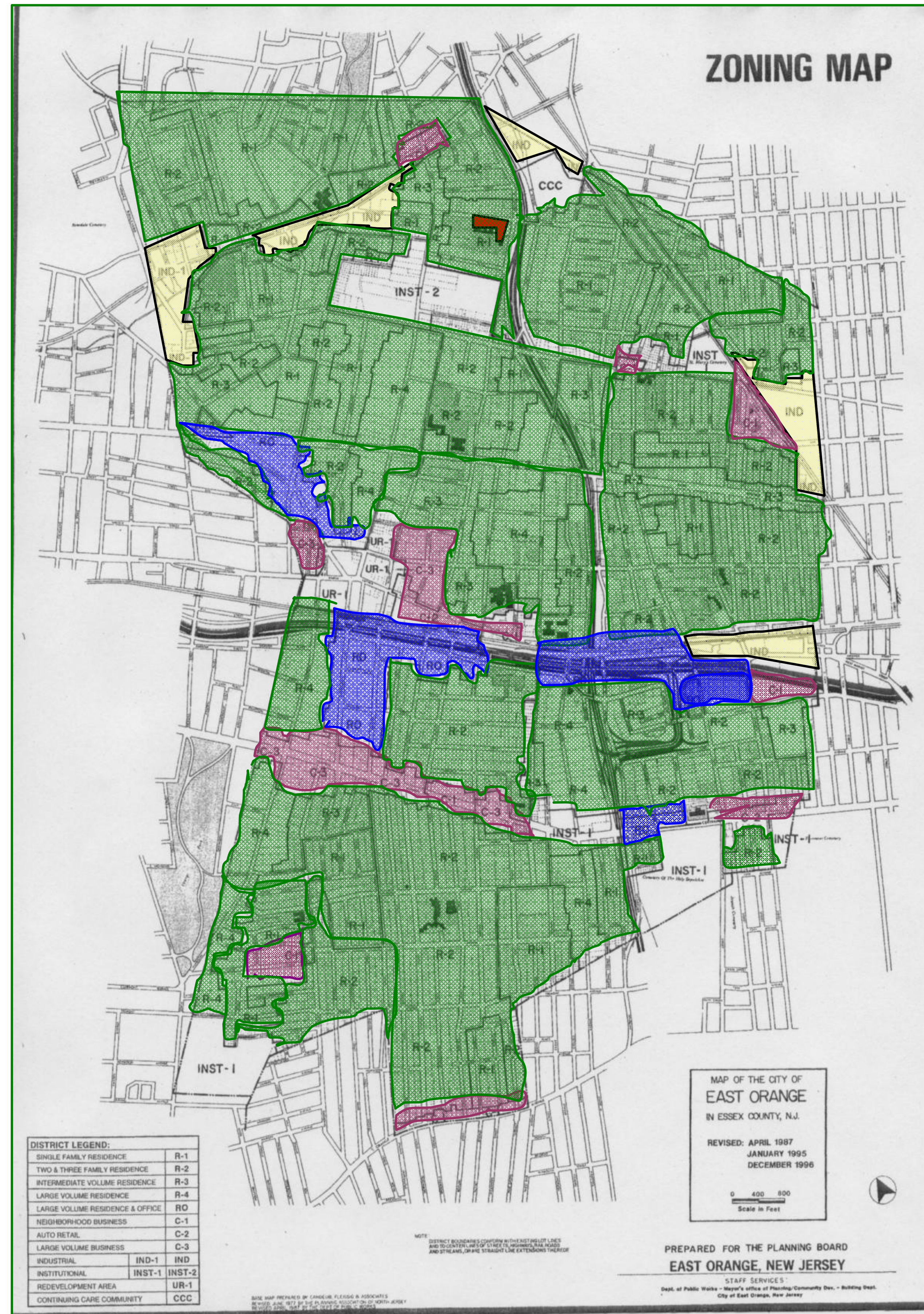


Urban Context



Significant Findings	Goal	Solution
Roadways take up a significant amount of horizontal land	Explore the vertical nature of the city to promote healthier eating	Target industrial districts and underutilized land that can possibly be used for urban farming

Built Environment

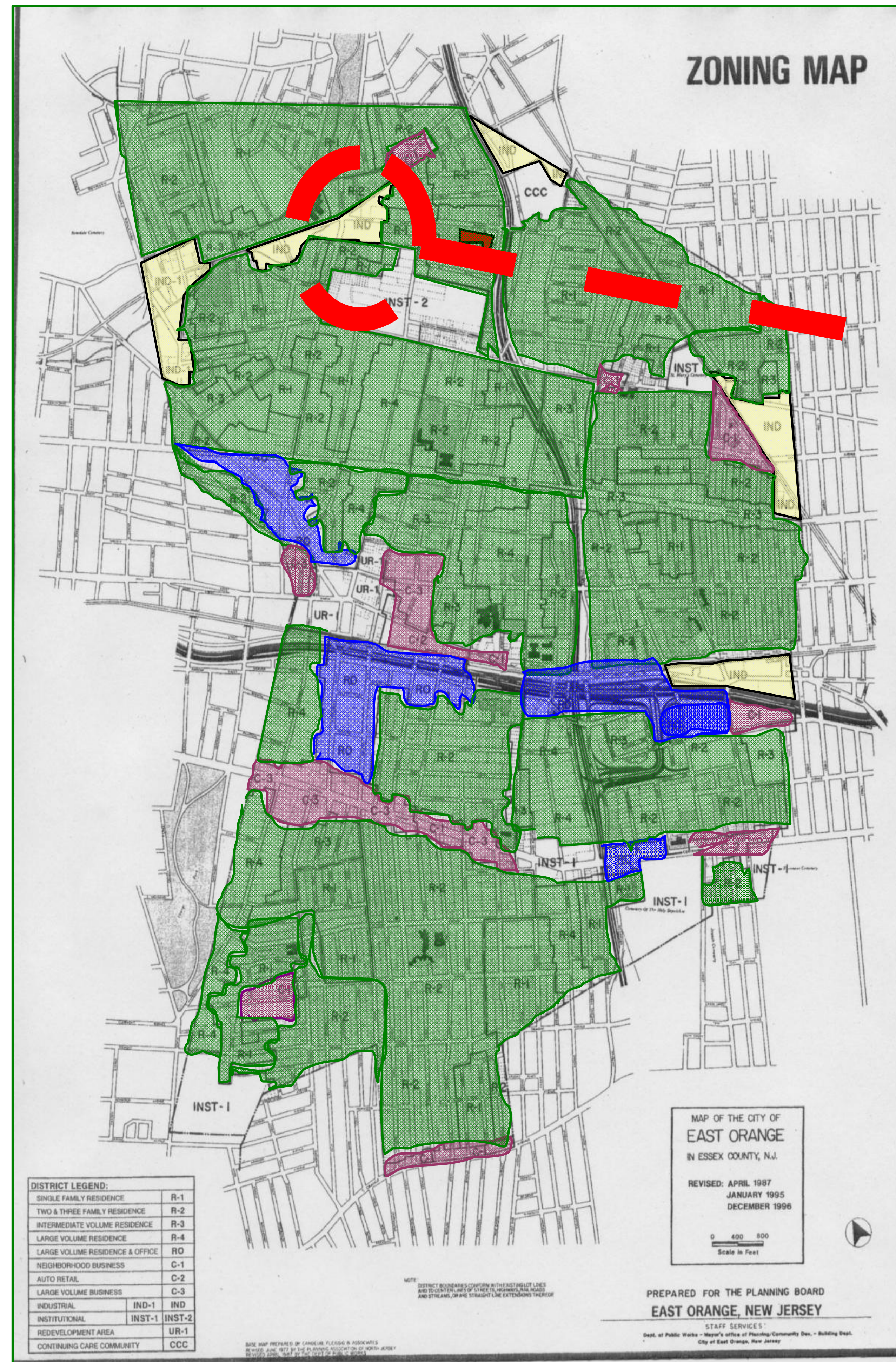


- Legend
- Industrial District
 - Commercial District
 - Project Site
 - Residential District
 - Mix-use District



Significant Finding	Goal	Solution
Majority of buildings are vertical to address the population for people to live and work	Identify types of uses that can be utilized for agriculture production	Target industrial districts and underutilized land that can possibly be used for urban farming

The City of East Orange Zoning Map



Legend
Industrial District



Existing Industrial Vacant Building Site

•Existing Site is estimated 3.78 acres



Significant Finding	Goal	Solution
The best and highest use of land does not include vertical agriculture	Include agriculture in the zoning ordinance	To become an established district in the zoning ordinance

Recommendations and Vision

Goal:

- Develop recommendations for Urban Farming

Objective:

- Research Case Studies

Recommendation 1 - Provide Nutrition facts in fast food restaurants in the community

Recommendation 2 - Inform the community on the benefits of vegetables

Recommendation 3 - Create Local Gardens in the Communities



"Living Tower" by SOA Architects

Nutrition Facts	
Serving Size 1/2 cup (about 82g)	
Servings Per Container 8	
Amount Per Serving	
Calories 200	Calories from Fat 130
% Daily Value*	
Total Fat 14g	22%
Saturated Fat 9g	45%
Trans Fat 0g	
Cholesterol 55mg	18%
Sodium 40mg	2%
Total Carbohydrate 17g	6%
Dietary Fiber 1g	4%
Sugars 14g	
Protein 3g	
Vitamin A 10%	Vitamin C 0%
Calcium 10%	Iron 6%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Saturated Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300 mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	



Recommendations

Recommendation 1 - Provide Nutrition facts in fast food restaurants in the community



BK Whopper

Nutrition Facts

Serving Size: (291g)

Amount Per Serving

Calories 700 **Calories from Fat** 370

% Daily Value*

Total Fat 42 g **65%**

Saturated Fat 13 g **65%**

Trans Fat

Cholesterol 85 mg **28%**

Sodium 1020 mg **42%**

Potassium

Total Carbohydrate 52 g **17%**

Dietary Fiber 4 g **16%**

Sugars 8 g

Sugar Alcohols

Protein 31 g

Vitamin A 1000 IU 20%

Vitamin C 9 mg 15%

Calcium 100 mg 10%

Iron 5.4 mg 30%

According to Healthy People 2010 there is too much consumption of saturated fat

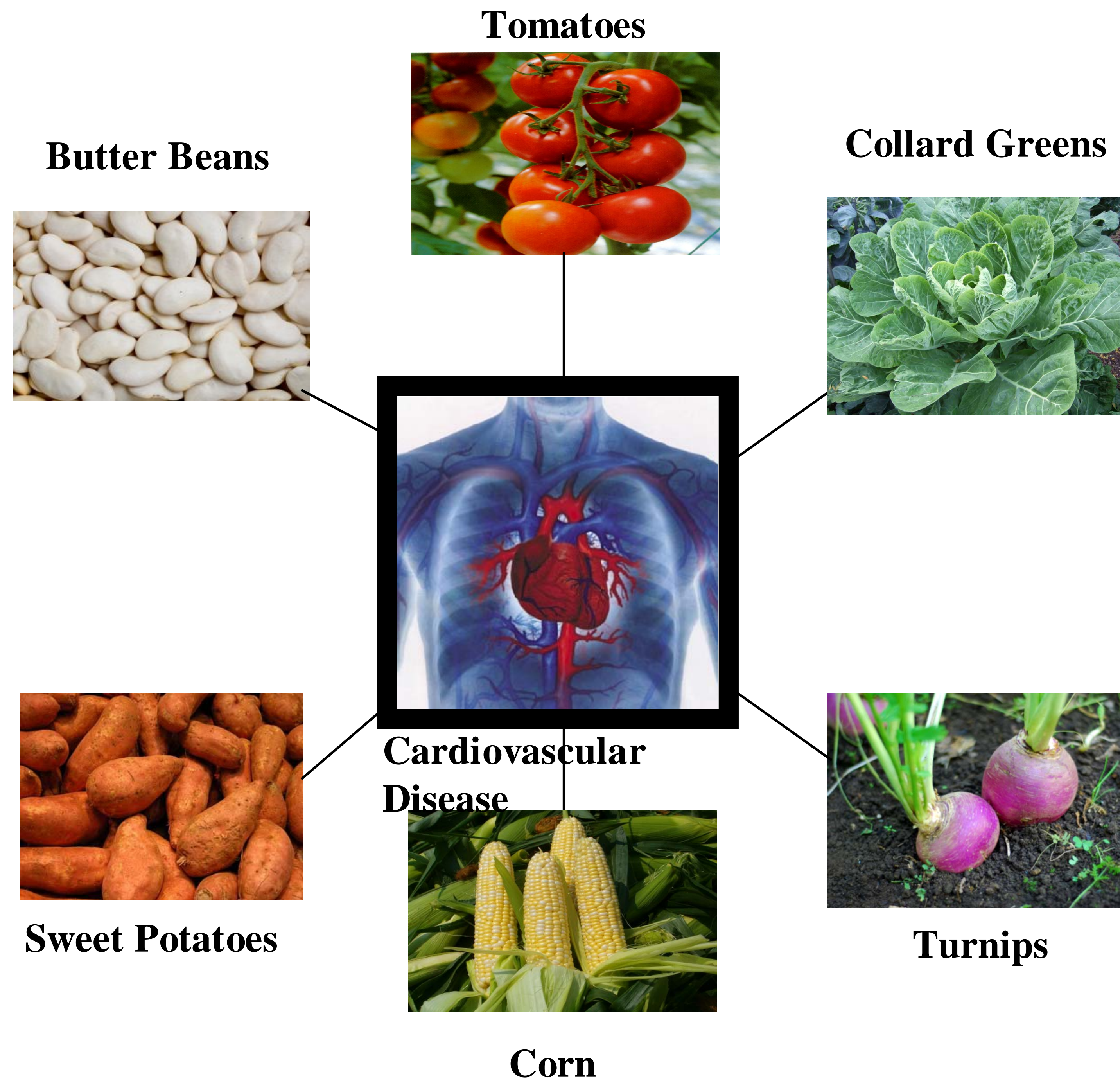


Sandwiches	Serving Size (g)	Calories	Calories From Fat	Total Fat (g)	Saturated Fat (g)	Trans Fats (g)	Cholesterol (mg)	Sodium (mg)	Carbohydrates (g)	Dietary Fiber (g)	Sugars (g)	Protein (g)	Vitamin A (%DV)	Vitamin C (%DV)	Calcium (%DV)	Iron (%DV)
6" Ham (Black Forest, without cheese)	225	290	40	4.5	1.0	0	20	1200	47	5	7	18	8	20	4	20
6" Oven Roasted Chicken	239	320	40	4.5	1.5	0	25	750	49	5	7	23	8	30	6	15
6" Roast Beef	239	310	40	4.5	1.5	0	25	840	46	5	6	26	8	20	4	25
6" Turkey Breast	225	280	30	3.5	1.0	0	20	910	47	5	6	18	8	20	6	15
6" Veggie Deluxe®	169	230	20	2.5	0.5	0	0	410	45	5	5	8	8	20	4	15

Recommendations

Recommendation 2 - Inform the community on the benefits of vegetables

Tomatoes



Nutrition Facts
Amount Serving: 1 cup (149g)
Calories: 27
Calories from Fat: 2g
Total Carbohydrate: 6g
Dietary Fiber: 2g
Sugars: 4g
Vitamin A: 25%
Calcium: 2%
Vitamin C: 32%
Iron: 2%

- A review of 72 different studies showed consistently that the more tomatoes and tomato products people eat, the lower their risks of many different kinds of cancer

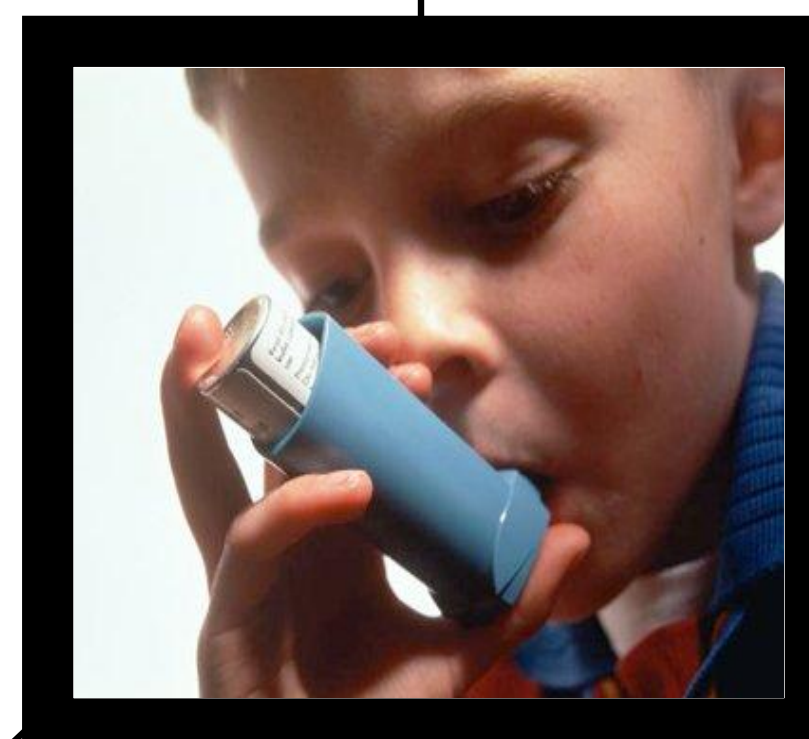
Recommendations

Recommendation 2 - Inform the community on the benefits of vegetables

Green Beans



Green Beans



Asthma



Tomatoes



Cucumbers

Nutrition Facts

Amount Serving: 1 cup (110g)

Calories: 34

Calories from Fat: 1g

Sodium: 7mg

Total Carbohydrate: 8g

Dietary Fiber: 4g

Sugars: 2g

Protein: 2g

Vitamin A: 15%

Calcium: 4%

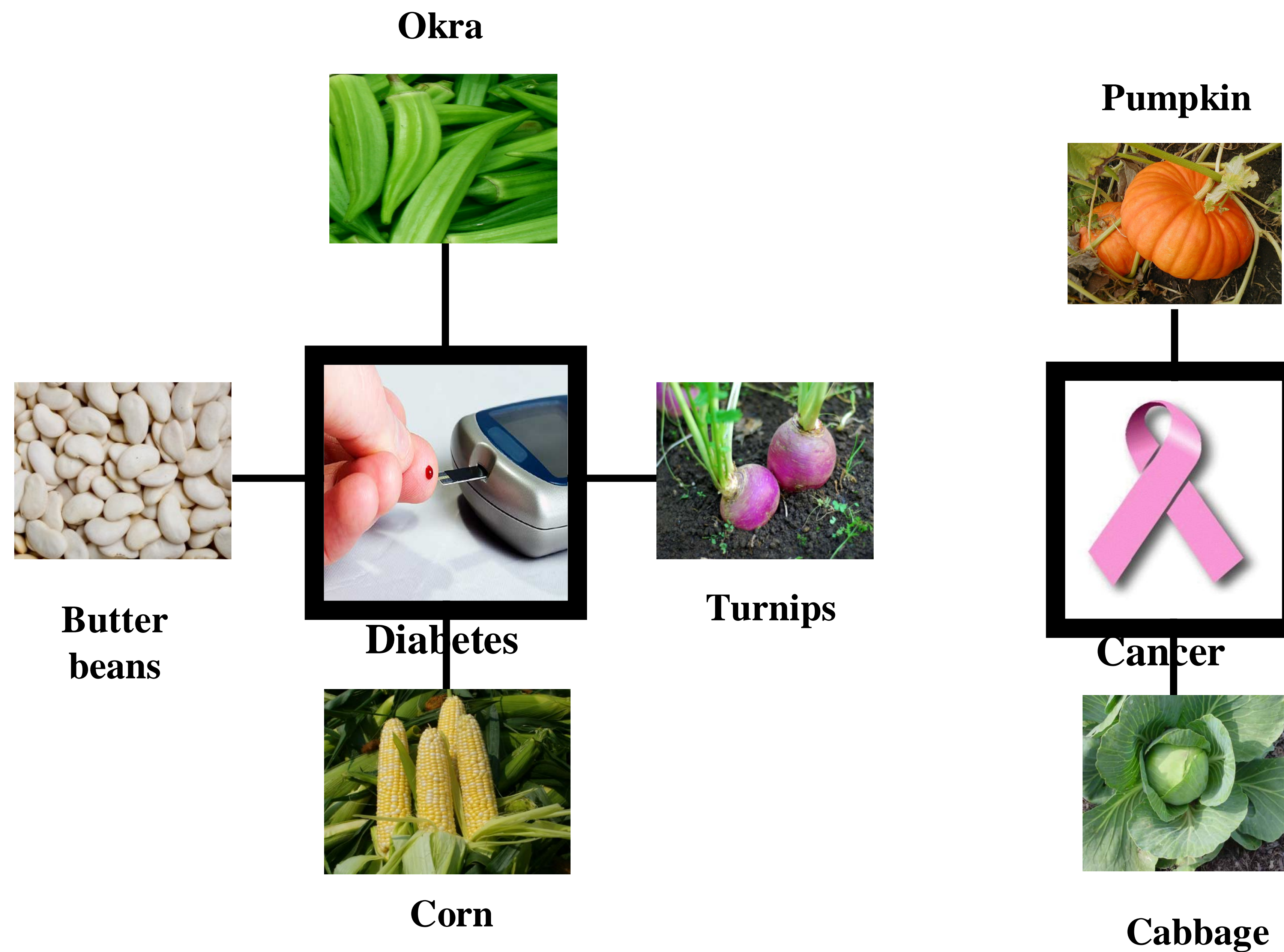
Vitamin C: 30%

Iron: 6%

- The vitamin K provided by green beans is important for maintaining strong bones. Vitamin K is known to be needed to maintain proper bone density and to coagulate blood. It plays a key role in proper development of the fetus.

Recommendations

Recommendation 2 - Inform the community on the benefits of vegetables



Romaine Lettuce

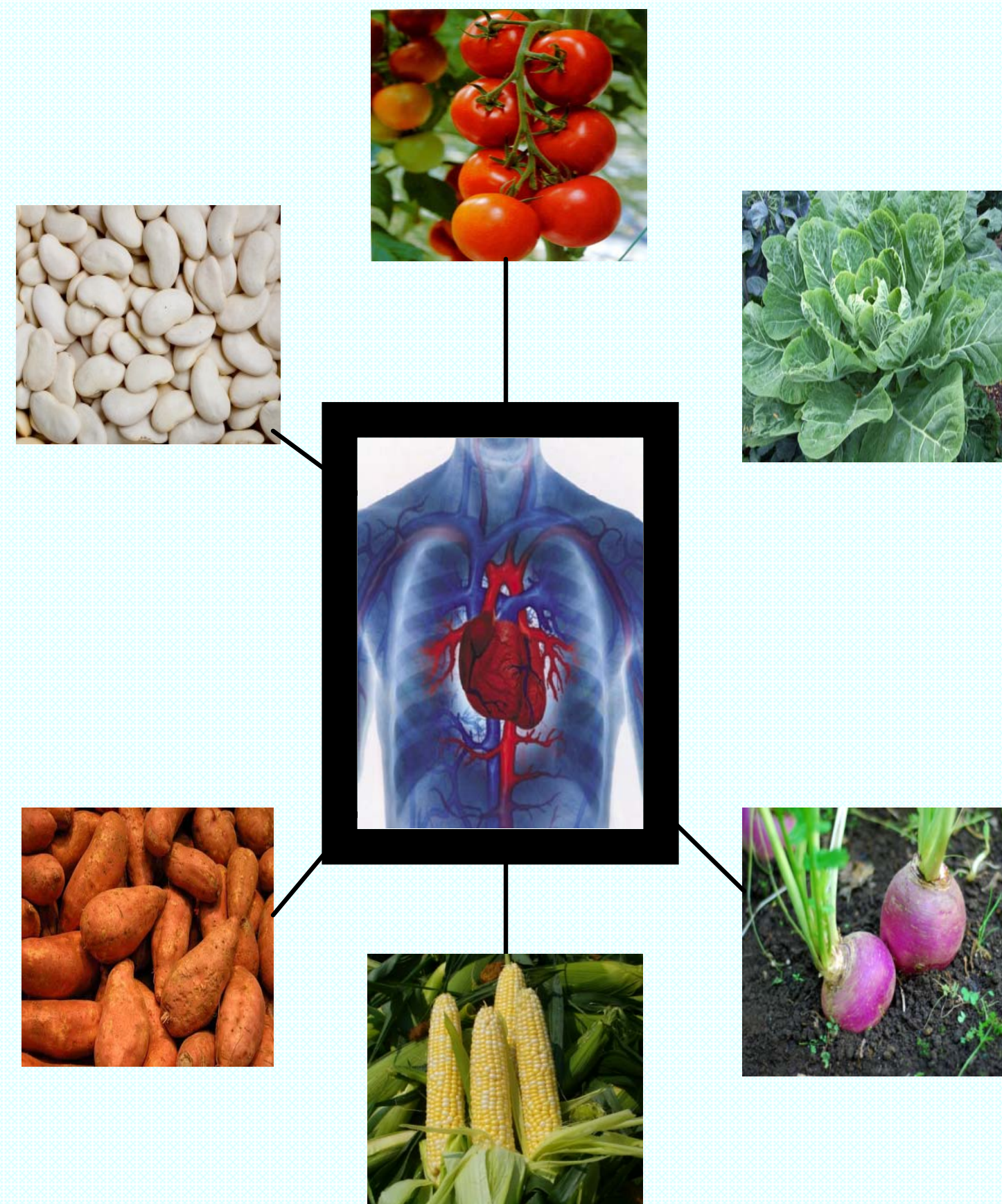


Nutrition Facts
Amount Serving: 1 Leaf inner (6g)
Calories: 1
Total Fat: 0g
Vitamin A: 10%
Vitamin C: 2%

- Lettuce aids digestion and promotes liver health. It can also reduce the risk of heart disease, stroke and cataracts. Other research shows it helps reduce the risk of cancer and may ease nervous insomnia.

Courtyards

Courtyard 2



Vegetables Associated with the Reduction of Chronic Disease

Asthma

Cucumbers
String Beans

Cancer

Tomatoes
Okra
Bell Peppers

Cardiovascular disease

Peas
Mustards
Collard Greens

Colon Cancer

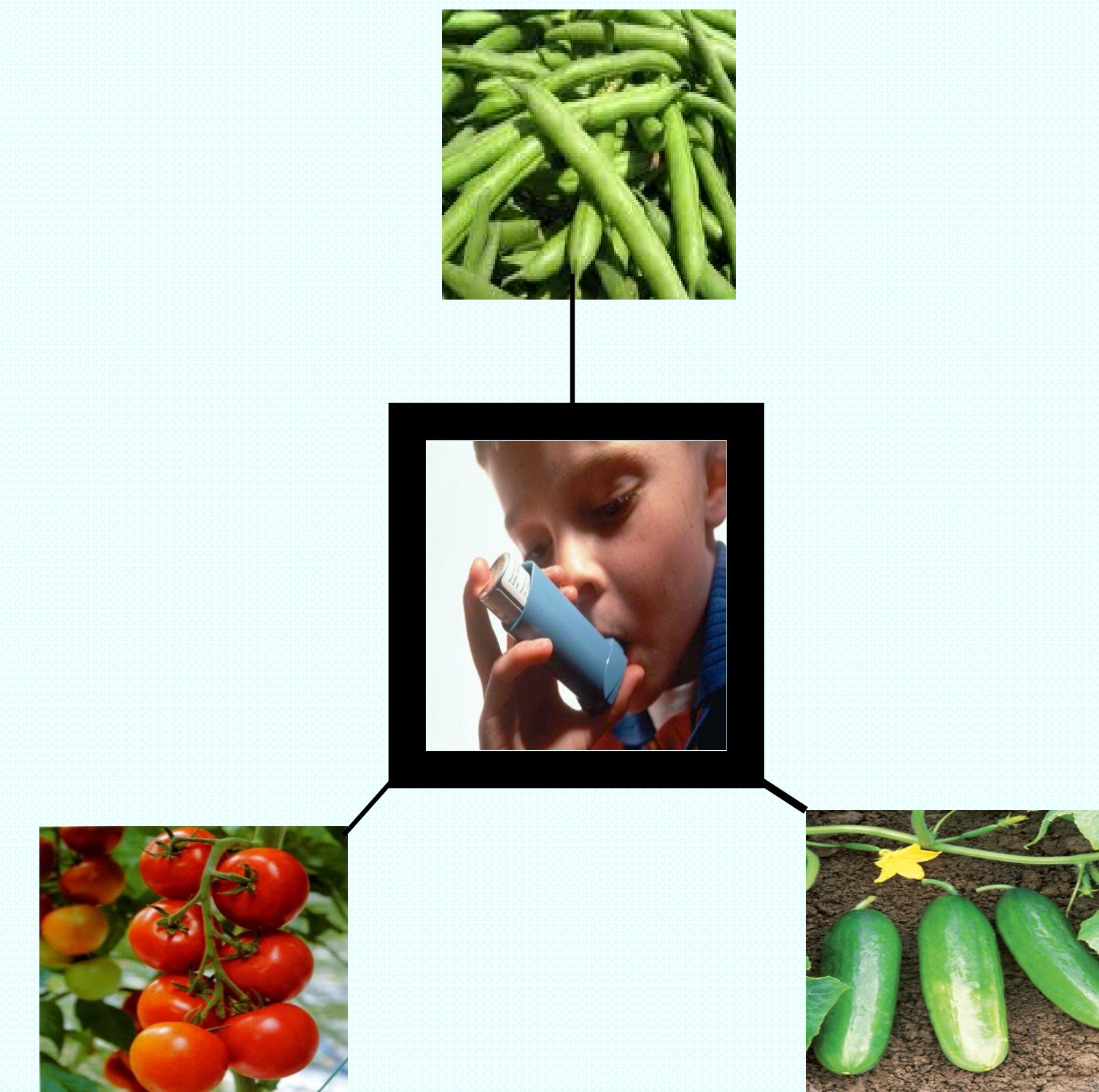
Cabbage

Diabetes

Turnips



Courtyard 3



Vegetables Associated with the Reduction of Chronic Disease

Prostate Cancer

Butter Beans

Asthma

String Beans
Cucumbers

Cardiovascular

Disease

Collard Greens
Mustard



Case Studies

- **Case Study 1: Eat Right Montana**
- **Case Study 2: Lets Move (First Lady Michelle Obama)**
- **Case Study 3: Vertical Farming (Concept of Architects Work)**
- **Case Study 4: Harvest Green Project (Conceptual Design)**
- **Case Study 5: Campus 9 Horizontal Gardening**



Helena, Montana



Washington DC



Harvest Green Project

Case Study 1: Eat Right Montana

Location: Montana

When: March 2010

Overview:

- Optimal health through nutrition, fitness and wellness for Montanans

Significant Findings:

- Not enough Montanans are participating in daily fitness, and eating nutritionally
- It started as a small scale project and turned into a state wide initiative

Recommendations:

- To inform children and their families in Montana about growing vegetables while reusing and recycling materials to explore nutrition from the ground up
- To encourage kids to grow nutrient-rich produce themselves, thus teaching them good eating habits for a lifetime of good health



Three Sisters



Case Study 2: Let's Move

Location: United States of America

When: February 2, 2010 – 2030

Overview:

- Childhood Obesity Action Plan
- To increase the health in children in the nation over the next few years

Significant Findings:

- Deep fryers are being used in schools
- Children today consume a substantial amount of added sugars through a whole range of products Many children in this nation are obese

Recommendations:

- Analyze the effect of state and local sales taxes on less healthy, energy-dense foods
- Having pediatricians measure children's Body Mass Index in order to track healthy weight
- Entertainment and technology companies should continue to develop new approaches for using technology to engage children in physical activity
- Pair chefs with interested schools in the community so together they can create healthy meals that meet the school's dietary guidelines and budgets, while teaching young people about nutrition and making balance and healthy choices



America's Move to Raise a Healthier Generation of Kids



Case Study 3: Vertical Farming

Overview:

- Vertical farms, many stories high, will be situated in the heart of the world's urban centers. If successfully implemented, they offer the promise of urban renewal, sustainable production of a safe and varied food supply (year-round crop production), and the eventual repair of ecosystems that have been sacrificed for horizontal farming.

Issue:

- The earth Population will reside in urban centers

Advantages:

- Year-round crop production; 1 indoor acre is equivalent to 4-6 outdoor acres or more, depending upon the crop
- No weather-related crop failures due to droughts, floods, pests
- All VF food is grown organically: no herbicides, pesticides, or fertilizers
- VF virtually eliminates agricultural runoff by recycling black water
- VF returns farmland to nature, restoring ecosystem functions and services
- VF greatly reduces the incidence of many infectious diseases that are acquired at the agricultural interface
- VF dramatically reduces fossil fuel use (no tractors, plows, shipping.)
- VF converts abandoned urban properties into food production centers
- VF creates sustainable environments for urban centers
- VF creates new employment opportunities
- VF could reduce the incidence of armed conflict over natural resources, such as water and land for agriculture



"Living Tower" by SOA Architects

When: 2030

Overview:

- The Harvest Green Project is by Romses Architects
- Was a winning entry in Vancouver's 2030 challenge
- Concept based on vertical farming of vegetables, herbs, fruits, fish, egg laying chickens, and a boutique goat and sheep dairy facility

Issue:

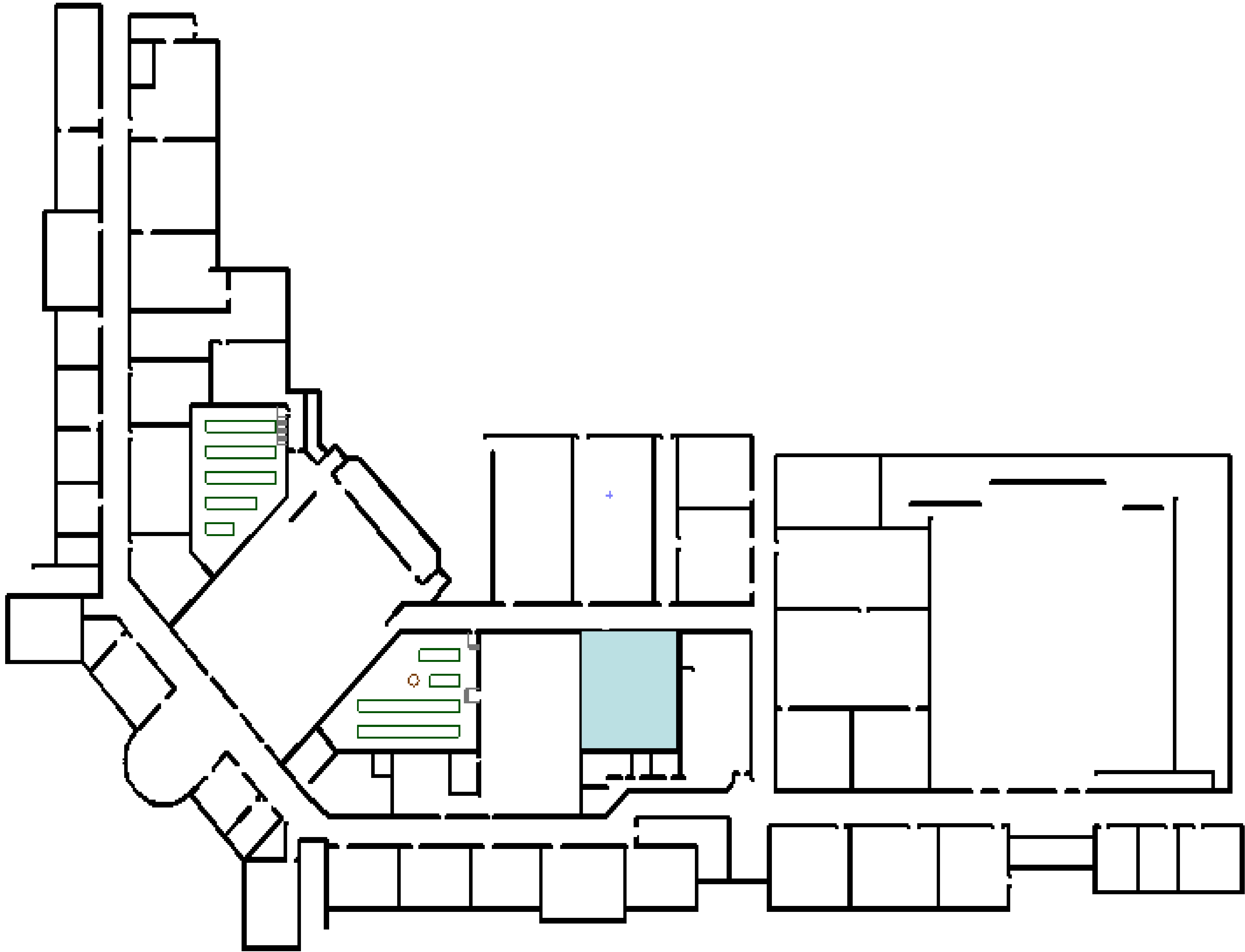
- Space issues with urban context
- Wind and energy

Recommendations:

- Tower should contain a plant and seed lab, an organic foods store, a supermarket, a harvest restaurant, a transit station, and underground parking
- The Harvest Green Project represents a potential urban future of mixed-use Modern Architecture



Case Study 5: Campus 9 Horizontal Gardening



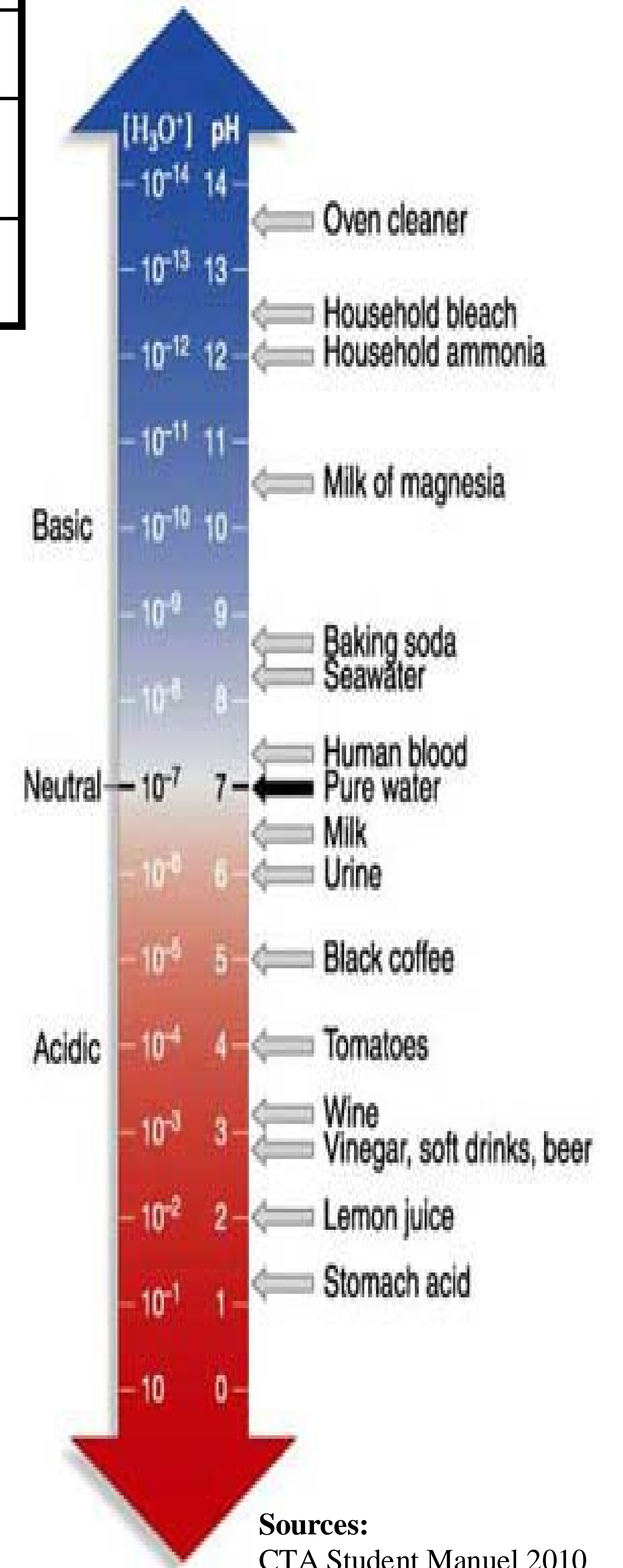
Healthy Soil

Courtyard	pH Level	Acceptable?
Courtyard 2	7.00 (neutral)	No
Courtyard 3	6.00 (slightly acidic)	No
Courtyard 4	7.10 (slightly alkaline)	No

The **pH level** is a measurement of the acidity or alkalinity of the soil. The pH level of the soil determines what organisms will be found and the nutrients available for plants. For example, if the pH is low or the soil is acidic there will be high fungal activity. Where the pH is nearly neutral you will find more bacteria activity. For most garden plants, an appropriate pH range is between 6.0-6.8.

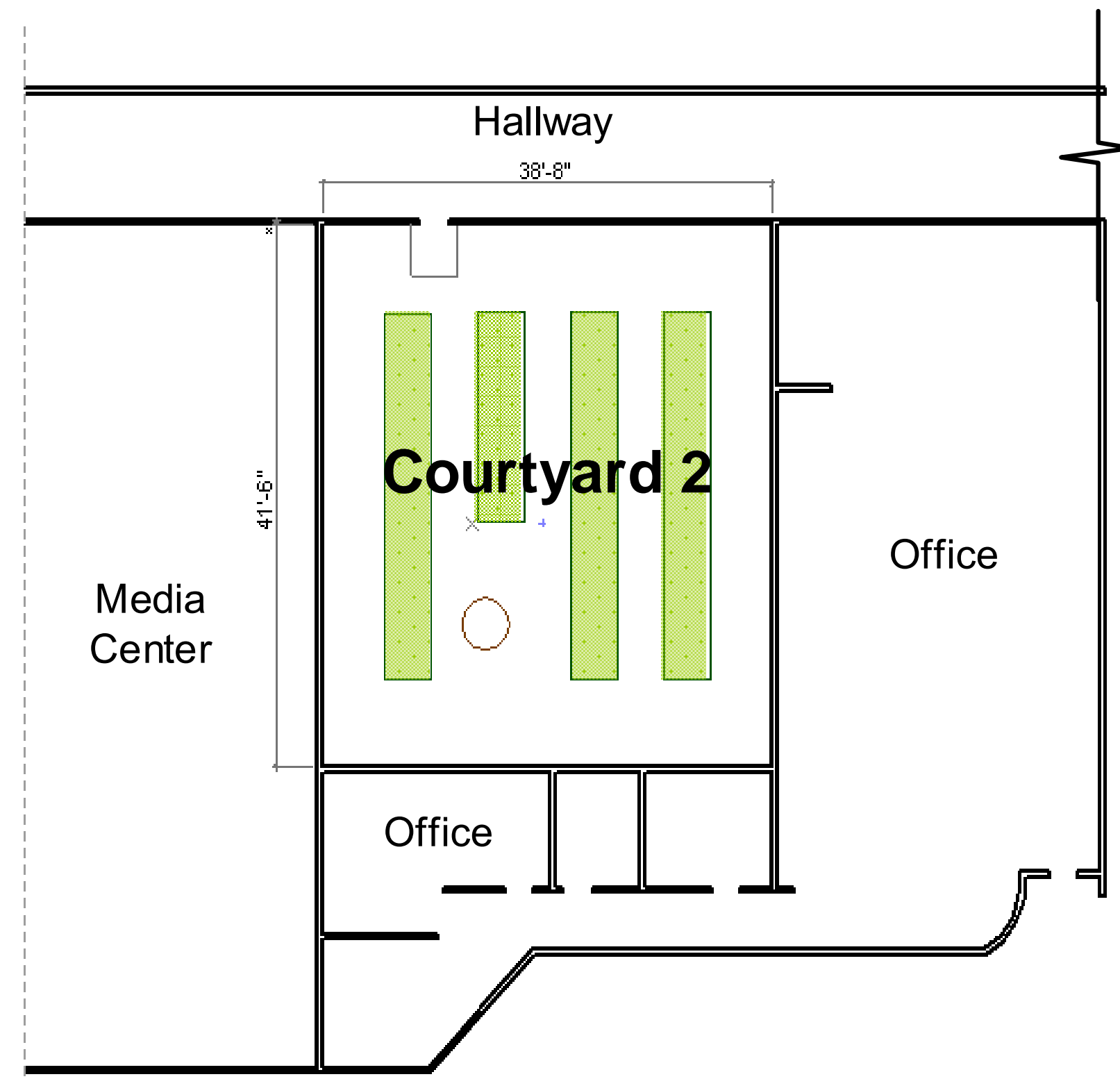


Ph Scale



Sources:
CTA Student Manual 2010

Courtyard 2



Project Information			
Item	Quantity	Unit	Total
Courtyard	1	1,605 sq.ft.	1,605 sq.ft.
Raised Bed	4	400 sq.ft.	400 sq.ft.
Top Soil	1	20 yards	20 yards

- Approximately 40 People can be feed



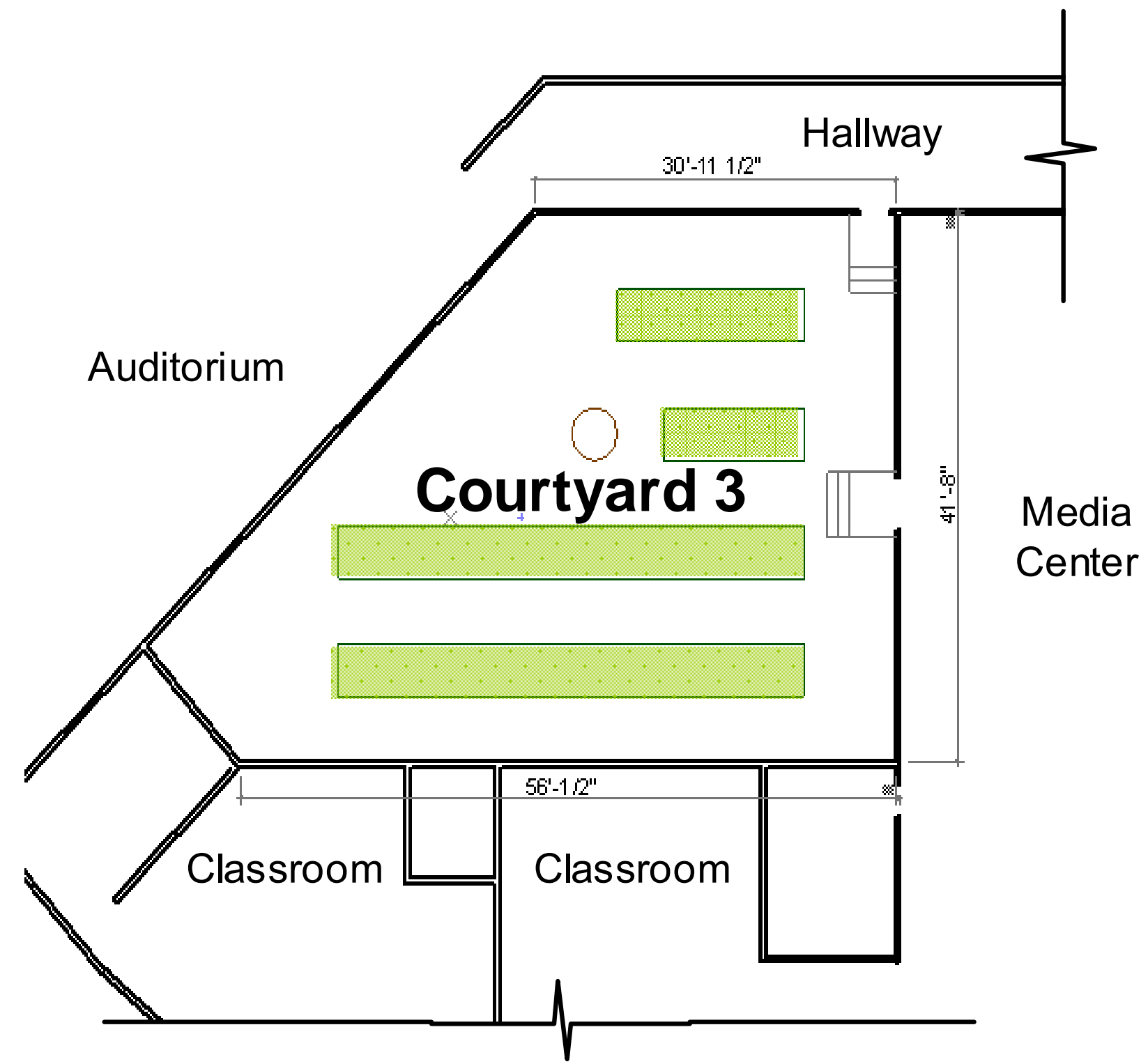
Before



After



Courtyard 3



Before



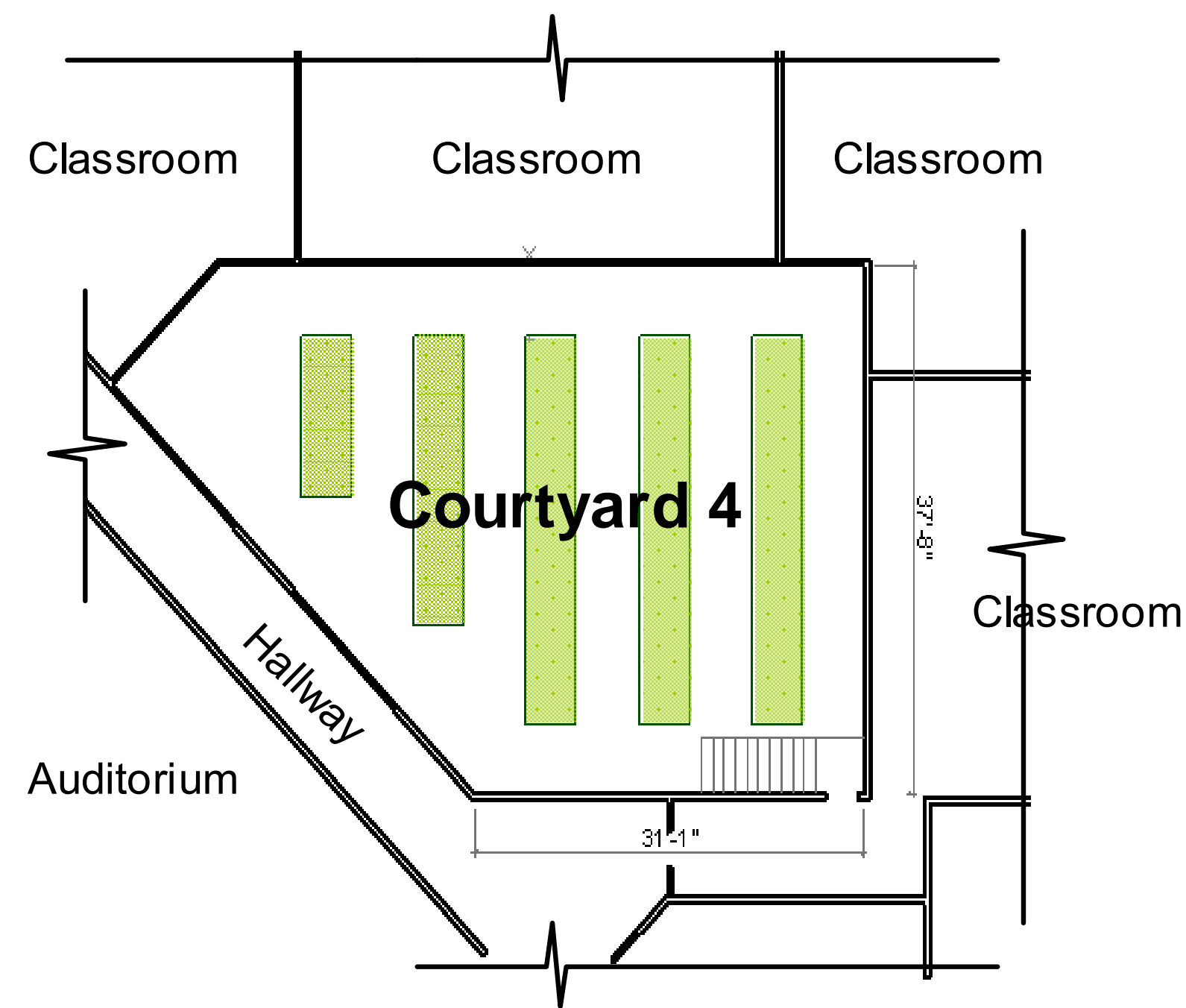
Project Information			
Item	Quantity	Unit	Total
Courtyard	1	2,092 sq.ft.	2,092 sq.ft.
Raised Bed	4	400 sq.ft.	400 sq.ft.
Top Soil	1	20 yards	20 yards

- Approximately 40 People can be feed

After



Courtyard 4



Before



Project Information			
Item	Quantity	Unit	Total
Courtyard	1	1,802 sq.ft.	1,802 sq.ft.
Raised Bed	4	464 sq.ft.	400 sq.ft.
Top Soil	1	20 yards	20 yards

- Approximately 46 People can be feed

After



Estimated Space Required to Meet the Needs of Fresh Produce

- Average American eat 200 pounds of fresh produce each year
- 200 pounds of fresh produce = 10 square feet of land
- 43,560 square feet = 1 acre of land

total pop x square feet of land need for the average American per year

The number of square feet equal to one acre

$$\frac{69,904 \times 10 \text{ sf}}{43,560 \text{ sf}} = \frac{699,040 \text{ sf}}{43,560 \text{ sf}} = 16.05 \text{ acres}$$



Existing Industrial Vacant Building Site – estimated 3.78 acres

Goal:

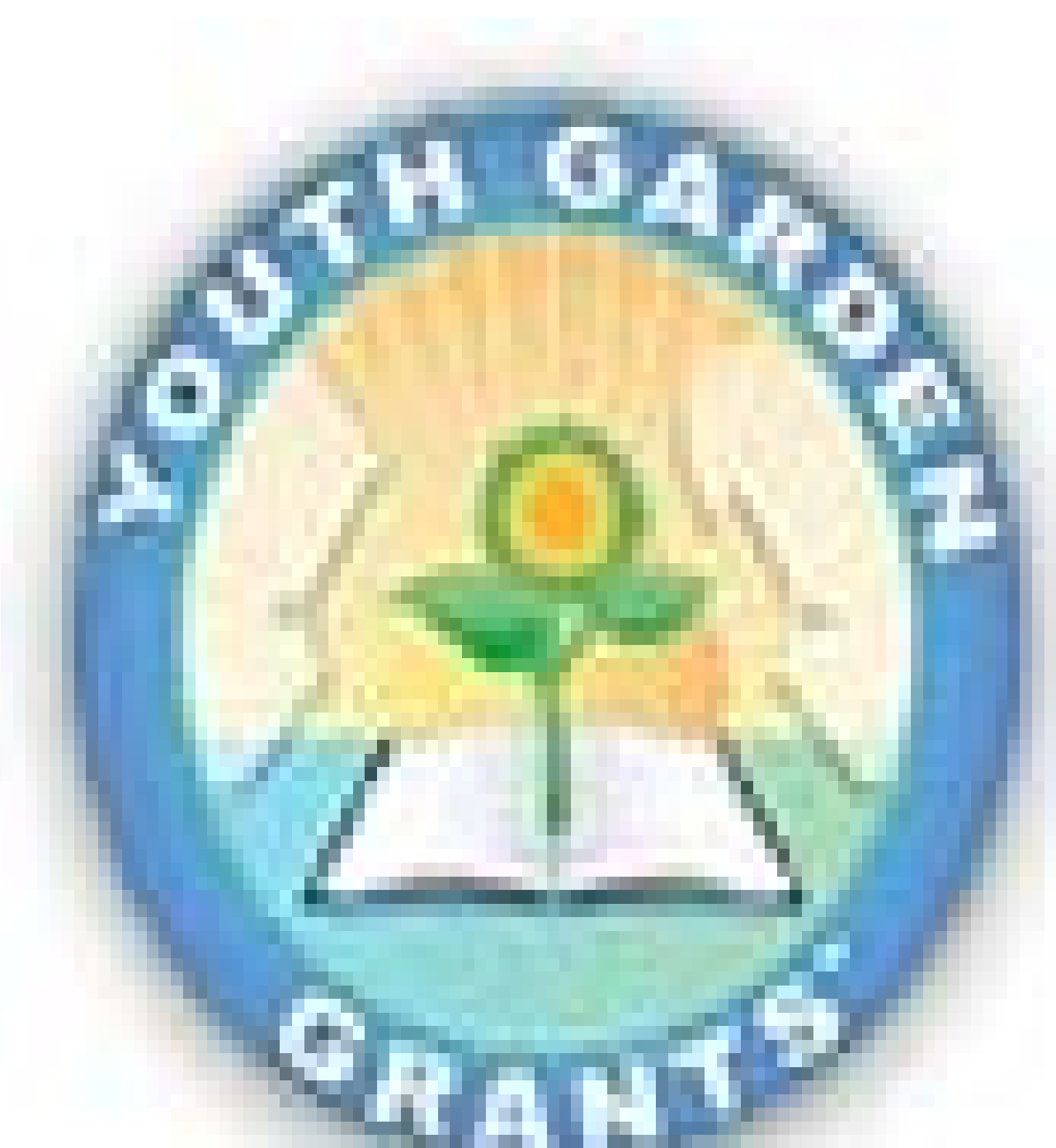
To Address Healthy Eating in Local, State, and National with Prospective Awards

Objective:

•To Research Awards to apply for the project

Awards

- Healthy School Program Champion Award
- USDA's Healthier US School Challenge Award (HUSSC)
- 2011 Mantis Awards for Community and Youth Gardens
- Youth Garden Grants Program



Award Name: Healthy School Program Champion Award

Award Description: The Healthy Schools Program Champion award celebrates individuals in schools across the country who are engaging, motivating and leading others to take steps toward creating healthier school environments for students and staff as members of the Healthy School Program



Criteria/Eligibility



To be considered for the Healthy Schools program Champion Award

- The nominee must be an active member of his or her school wellness council and must have served for at least the 2009-2010 school year.
- The nominee's school must be an enrolled member of the Healthy schools Program and have completed the first three steps of the Healthy Schools Program's Six steps to a Healthier School Environment in the Healthy schools Builder:
 - 1- Convened a school wellness council
 - 2- Completed the Healthy schools Program Inventory
 - 3- Created an action plan
- The nominee must be comfortable speaking to his or her own peers and the media about the efforts his or her school has undertaken in creating a Healthier environment for students and staff.
- An individual must be nominated by someone else; self-nominations are not accepted.

Deadline: The nomination deadline was April 1, 2010

Award Name:

- USDA's Healthier US School Challenge Award (HUSSC)

Award Description:

- The monetary incentives are available to all schools that achieve HUSSC status by meeting the required criteria.
- In addition to the plaque, banner and recognition currently provided, HUSSC schools approved under the current criteria will receive the following monetary incentive awards
 - Gold Award of Distinction - \$2,000
 - Gold - \$1,500
 - Silver - \$1,000
 - Bronze - \$500
- All HUSSC award monies must be deposited into the non profit school food service account and used for allowable expenses under that account.

Eligibility/Criteria:

- The monetary incentives are available to all schools that achieve the "Healthier US School Challenge" status by meeting the required criteria.
- Schools approved as a HUSSC school under the current criteria, will be eligible for the monetary incentive award

Deadline:

- June 2011



Sources:

<http://www.fns.usda.gov/tn/healthierus/application.html>

http://www.google.com/imgres?imgurl=https://engineering.purdue.edu/H2biomass/images/11_page_graphics/800px-USDA_logo.svg.png&imgrefurl=https://engineering.purdue.edu/H2biomass/&h=552&w=800&sz=31&tbnid=KyYXw4lb9gVJ-M:&tbnh=99&tbnw=143&prev=/images%3Fq%3DUSDA%2Blogo&usq=__fuPRUebWBUoSsWOWbNoNfAEGua8=&sa=X&ei=pJITN6ZFJKcsQPjqO1l&ved=0CByQ9QEwAA

Award Name:

- 2011 Mantis Awards for Community and Youth Gardens

Award Description:

- Any Non-Profit Garden program may apply
- In the past, winners have included schools, churches, correctional facilities, parks departments, youth camps, community gardens, and many others. These are groups turning slim resources into bountiful gardens with far-reaching benefits, from increasing their community access to fresh nutritious foods to educating the public about the importance of gardening in our nation's history
- Programs will each receive a Mantis Tiller/ Cultivator with border/edger and kickstand, and their choice of gas-powered 2-cycle engine or electric motor. (Value: \$349.00)



Eligibility/Criteria:

- Applicants must operate a charitable or educational program that is not for profit in the United States
- Applicants must not offer the tiller as a fundraising (e.g., auction or raffle)

Deadline:

- Applications are due March 1, 2011

Sources

- http://www.portable-electric-power-generators.com/images/powertools/mantis/mantis_logo.jpg
- <http://kidsgardening.org/grants/mantis.asp>

Award Name:

- Youth Garden Grants Program

Award Description:

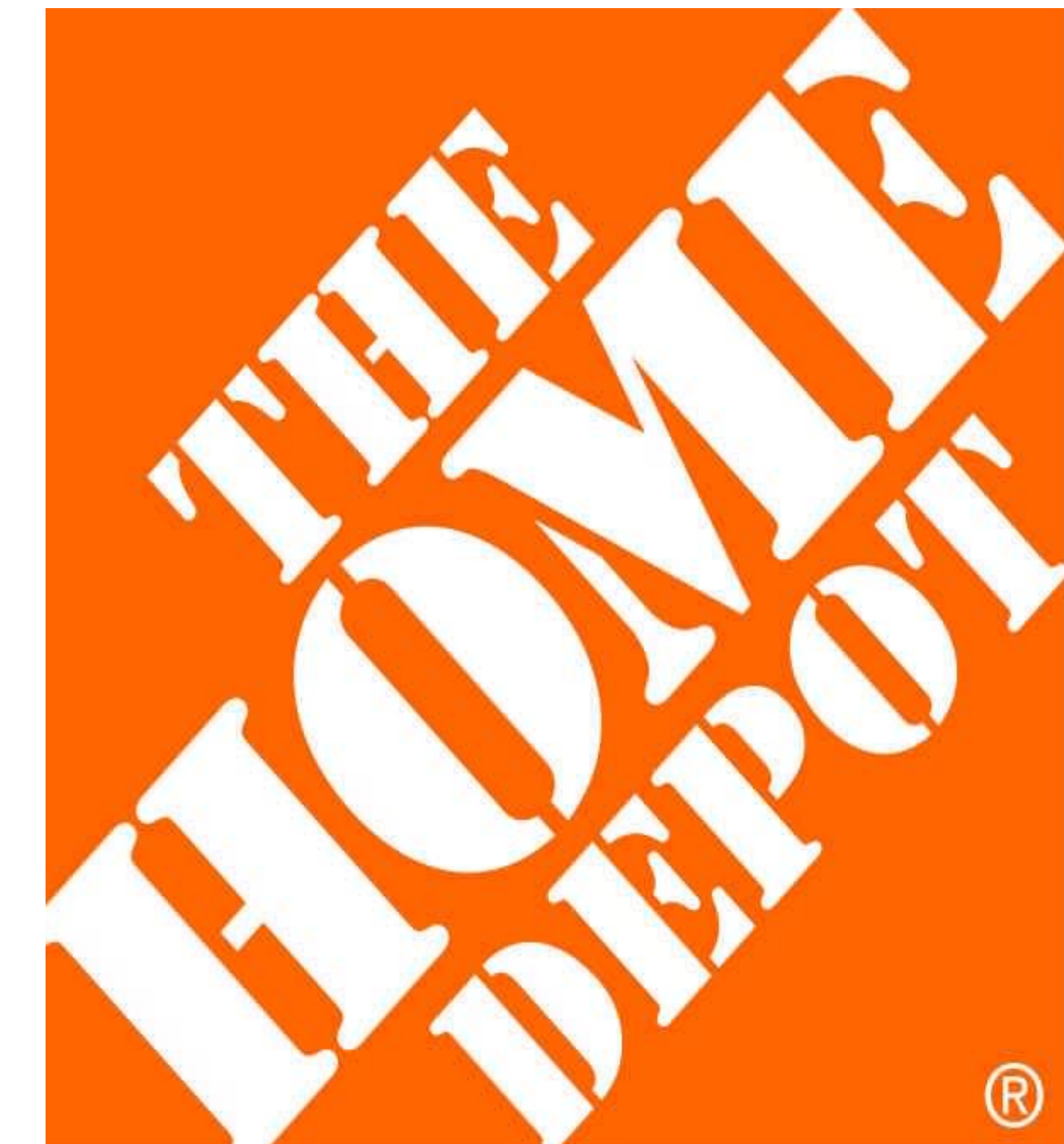
- The National Gardening Association awards Youth Garden Grants to schools and community organizations with child-centered garden programs. Priority will be given to programs that emphasize educational focus and/or curricular ties, nutrition or plant-to-food connections, and environmental awareness/education.

Eligibility/Criteria:

- Schools, youth groups, community centers, camps clubs, treatment facilities, and intergenerational groups throughout the United States are eligible. Applicants must plan to garden in 2010 with at least 15 children between the ages of 3 and 18 years.

Deadline:

- The deadline has passed for 2010, but there is an option to be notified when applications for the 2011 cycle are available on the website.



Sources

- <http://assoc.garden.org/grants/>
- http://media.photobucket.com/image/Home%20Depot%20logo/lawasnyder/home_depot_logo.jpg