

A Green New Deal Approach: Imagining Community Gardens for the Historic East End Neighborhood

A Planning & Design Studio Project

for

PLN 403 & 505

Department of Geography and Planning

College of Business and Public Management

West Chester University of Pennsylvania

Fall 2020

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Executive Summary

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Preface

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Dr. Jongwoong Kim

November 20, 2020

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Chapter 1: Introduction

1. Introduction of East End and the Studio

Our project site is the East End neighborhood in the Borough of West Chester. East End is culturally unique and home to African Americans for over 180 years. South of Market Street on the eastern edge of West Chester's booming downtown business district, the approximately 400-household East End has both an industrial and cultural heritage. Notably, civil rights activist Bayard Rustin was born and raised in the East End.

The area of the Borough where the East End is located has seen dramatic changes in recent years, as the area around it has been redeveloped with new housing and investment in sidewalks, street trees, and other urban infrastructure. More change is expected over the next 5-10 years as approved redevelopment projects begin to appear. However, despite these current and anticipated changes (possibly both positive and negative), the neighborhood lags the rest of the Borough in terms of economic, social, health, and safety conditions of the residents. Compared to the rest of the Borough, the East End residents live with lower income levels, higher poverty rates, higher unemployment rates, and lower education levels, while the neighborhood lacks green public space and is considered more vulnerable to extreme weather events such as flash floods.

“West Chester's East End neighborhood has a rich African American heritage. Churches, social clubs, charitable organizations, and community centers were formed out of a desire in the black community to help each other prosper in a world that did not view them as equals. Contributions from former black residents can be seen everywhere to this day. There are oyster shells embedded in the concrete- a reminder of black entrepreneurs selling oysters in the borough. Architectural gems like the Star Social club were once a place for black men to congregate and socialize, and some jazz greats like Duke Ellington even performed there. Mud Row is a section of the East End with two-story houses which were lived in by brick makers in West Chester, and the character of the historic homes are as much a part of the heritage as the people who inhabited them. Everywhere you look in the East End, there are clues leading to a rich history of a supportive and thriving community.” – Patricia Quinn, PLN 505

Adopting the spirit and theoretical framework of the "Green New Deal" --- of which core goals are justice (equity), jobs (economy), and decarbonization (environment) --- this project intends to prepare a plan and designs to build community gardens in the neighborhood.

“On February 7th, 2019, Representative Alexandria Ocasio-Cortez (NY-14) and Senator Ed Markey (MA) introduced H.R. 109, a non-binding resolution ‘Recognizing the duty of the Federal Government to create a Green New Deal.’ In it, they provide a framework for a ‘10-year national mobilization’ that calls on Congress to pass legislation that:

- Builds resiliency against climate change-related disasters
- Repairs and upgrades the infrastructure of the United States (including universal access to clean water)

- Upgrades every existing building to and requires that all new construction in the U.S. achieve maximum energy and water efficiency (among other standards)
- Reinvigorates federal industrial policy to guide the growth of a 'clean manufacturing' sector
- Works collaboratively with farmers and ranchers to lower agriculture-driven GHG emissions
- Invests in conservation lands and other 'low-tech' carbon sequestration solutions that also enhance biodiversity
- Remediate or repurposes hazardous waste and abandoned sites
- Focuses on several other technology-driven emissions-reducing investments"

(The Landscape Architecture Foundation, 2020).

“West Chester Borough's East End neighborhood contains many significant, historical landmarks that serve as cultural beacons for the black community. Many of these landmarks were constructed in response to Jim Crow laws that prevented black residents from using facilities designated for white residents. The existence of these facilities reminds society at large of the self-reliance and strong will of the black community to create their own spaces during segregation. However, the desirable lifestyle West Chester Borough offers has drawn significant growth in the past decade, resulting in the replacement of predominantly black neighborhood blocks for luxury townhomes and apartments.” – Abbey Cadden, PLN 505

While community gardens and urban farms cannot be a silver bullet for all those socioeconomic and environmental challenges faced by the neighborhood, they have great potential to positively impact all three goals (equity, economy, and environment) the Green New Deal policy movement pursues, helping address the neighborhood’s complex and interconnected issues.

This studio project was pursued during a 15 week/module-period in fall 2020 with the following schedule.

Table 1 – The 15-Week Studio Course Schedule

START DATE	MODULE	TOPIC
Monday, Aug. 24	1	Course Introduction
Monday, Aug. 31	2	East End (Baseline Research 1 of 3)
Monday, Sep. 7	3	East End (Baseline Research 2 of 3)
Monday, Sep. 14	4	East End (Baseline Research 3 of 3)
Monday, Sep. 21	5	Review of Existing Plans
Monday, Sep. 28	6	Green New Deal
Monday, Oct. 5	7	Urban Farms & Community Gardens 1

START DATE	MODULE	TOPIC
Monday, Oct. 12	8	Urban Farms & Community Gardens 2
Monday, Oct. 19	9	Methods and Analysis
Monday, Oct. 26	10	Potential Funding Sources
Monday, Nov. 2	11	Work Session 1
Monday, Nov. 9	12	Work Session 2
Monday, Nov. 16	13	Work Session 3
Monday, Nov. 30	14	Putting Together and Rehearsal
Monday, Dec. 7	15	Presentation and Report

The first step that needed to be taken before the baseline research about this neighborhood can begin was to define the neighborhood's boundary. Initially, we set a boundary (see Figure 1) surrounding the neighborhood's representative historical buildings (marked by stars) and identified potential lots (yellow rectangles) to build community gardens. (This boundary later changed to include more blocks in the northeast.)

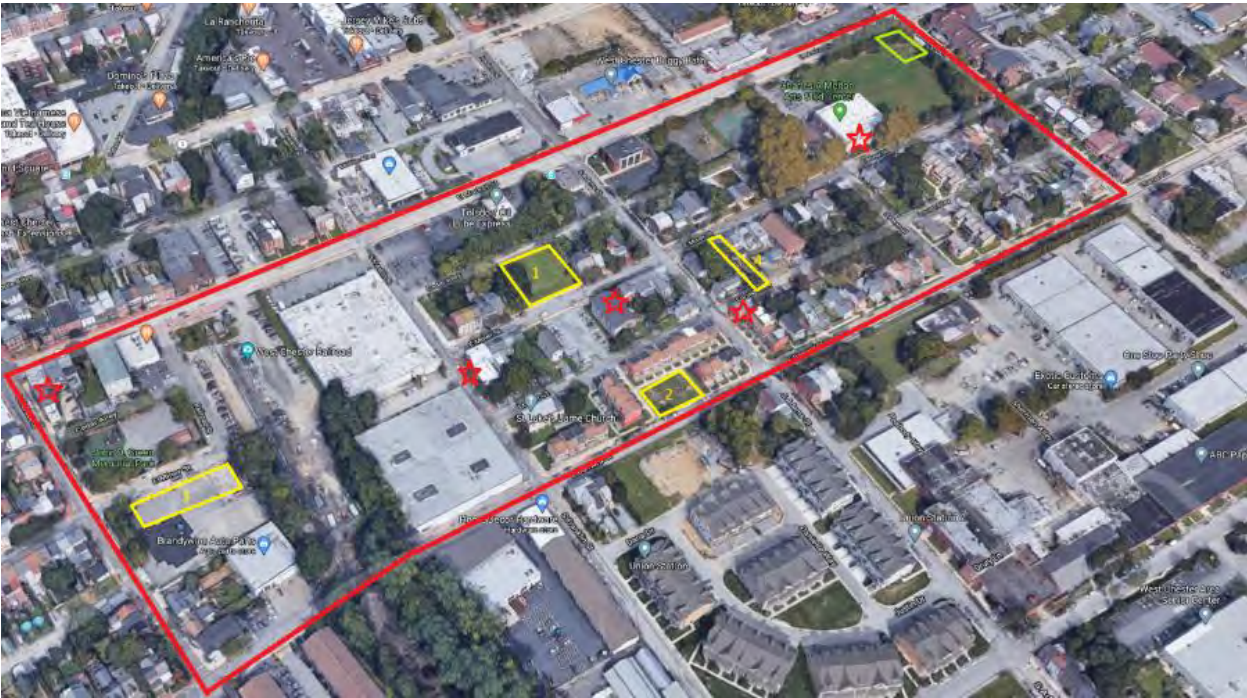


Figure 1 – The Initial/Tentative East End Neighborhood Boundary

1. privately owned, across the Bethel AME Church
2. an empty yard in a HACC public housing complex
3. a concrete floor in a WCB park
4. a narrow plot nearby the Tent Sister's Hall, privately owned

The green rectangle (far right and above) is a community farm the Melton Center currently tries to relocate (the lot will be used to construct a public housing complex). The farm was established in 2015 by a partnership between the Center and the owner of the Roots Cafe (a local/organic food restaurant) and initially crowdfunded. The project goals may include finding a suitable site for this community farm to be relocated.

“West Chester's East End is full of generations of African American heritage. It is populated with people of all ages, from children to senior citizens. The groundwork that the older generations have laid for years is now being taken on and expanded by younger generations. It consists of many historical landmarks, such as the Magnolia House Hotel, which once housed much of the black community, including Frederick Douglass, when options were slim. It also includes the Tent Sister's Hall, which was a stop on the underground railroad during the Civil Rights Movement. Gentrification of West Chester's East End is changing the shape of the community but with the efforts of Miss Penny (tour guide), and many others, the community is focused on keeping its historical landmarks.”
 – Ryan Cavanaugh, PLN 403

After creating the “working” neighborhood boundary, the studio teams created various maps, charts, and graphs (see Chapters 2, 3, and 4) in the following criteria as the baseline research:

- Team 1: *Cultural and Physical Characteristics* (focusing on the "inside" of the neighborhood and the neighborhood itself)
 - Map 1-1. Location of Historic Buildings and Community Assets
 - Map 1-2. Zoning Map of the Neighborhood
 - Map 1-3. Parcel Map of the Neighborhood (by Land Use Code)
 - Charts/Graphs/Infographics about Housing Conditions (e.g., Median Home Value compared to the County's/Borough's)
 - Other Maps and Charts/Graphs/Infographics that might be important and/or relevant
- Team 2: *Social and Economic Characteristics* (focusing on comparing the neighborhood's to the County's/Borough's)
 - Map 2-1. Black Population (or Minority Population) (%) by Block Groups
 - Charts/Graphs/Infographics about Income (e.g., Median Household Income)
 - Charts/Graphs/Infographics about Poverty (e.g., Poverty Rate)
 - Charts/Graphs/Infographics about Unemployment (e.g., Unemployment Rate)
 - Charts/Graphs/Infographics about Education (e.g., Educational Attainment)
 - Charts/Graphs/Infographics about Health (e.g., Health Insurance and COVID-19 Preparedness)
 - Other Maps and Charts/Graphs/Infographics that might be important and/or relevant
- Team 3: *Environmental/Natural Characteristics* (focusing on the neighborhood and a little bit of its nearby areas)
 - Map 3-1. Floodplain Map (e.g., 100 Year Floodplain)
 - Map 3-2. Impervious Surface Map

- Map 3-3. Location of Green/Open Space
- Other Maps and Charts/Graphs/Infographics that might be important and/or relevant

“This particular neighborhood to newcomers may come as mere photogenic sites, however, what these people will fail to understand is just how many historic and personal landmarks lie here. Each and every building has a story along with the people who thrived there. Unfortunately, when these buildings came to be, the African American community that lived here dealt with many obstacles. One being gentrification. The Melton Center, one of many vital landmarks, served as an art and education center. It is said that the creation of this building took sheer will and grit. Another landmark such as the Star Social Club became a town hall for black men in town.” – Jordan Engel, PLN 403

After creating the maps and the figures, each team wrote a brief description and/or explanation about each map and each figure and emphasized any significant or meaningful findings/insights from them (see Chapters 2, 3, and 4).

2. Neighborhood Field Observations

Observation #1 (by Mahmoud Sheikh, PLN 505)

My first stop at the East End was the Charles A. Melton Art and Education Center. The Melton Center is an older building, with a couple of basketball courts and picnic areas. It is a large block shaped building with a few small trees lined in front of it as well as a mural depicting various figures related to Melton Center’s history. Though it doesn’t appear to be in great condition, with some parts of it even littered with trash It still remains a major fixture of the community. There were even a few kids playing on one of the basketball courts when I arrived. I then went behind the Melton Center and walked through some of the neighborhood, traveling along East Miner Street, East Market Street, and South Adams Street. These streets were comprised of churches, townhouses and apartments as well as public housing, with a mixture of brick sidewalks and cement pavements lining the sides of the streets. Many of the townhouses and apartments in the East End are older buildings made out of brick and concrete and were most likely built in the early to mid-twentieth century. The conditions of these buildings vary, with some being kept in better



Photo 1 – The Charles A. Melton Center’s mural

condition than others. Some would look like nice little bungalows that you could find in more suburban areas, while others looked more like the drab apartment buildings that you'd typically find in a city neighborhood. A lot of these housing units also had small little yards with chain-linked fences surrounding them. I did notice some newer homes cropping up in the area, most likely as result of the gentrification that has been happening in the neighborhood in recent years. There were two churches on East Miner street: St. Paul's Baptist Church and Bethel AME Church. Much like the rest of the neighborhood, these churches were older buildings mostly made from brick and concrete. St. Paul's Baptist was a smaller building with a triangular-shaped font and a large, colorful stained-glass window running down the middle. Bethel AME is larger and older, with an arched front, 3 large stained-glass windows, and a small red door in front. These churches were both built as places of worship for the East End's African American community, and are symbols of the neighborhood's cultural heritage. I then went over to South Adams Street to see the public housing units. On my way, there I passed by the Tent Sister's Hall. Built in 1847, the Hall served as an Antebellum African American mutual aid society. The building was kept in pretty good condition, and it looked kind of similar to an old church, with an arched brick front and multiple arched windows. When I got to the public housing units I could see that, though they didn't look as nice as the newer townhouses, they were still in fairly good condition. I also noticed that, unlike a lot of other forms of public housing, these units looked similar to some more modern looking townhouses. I decided to go back onto East Miner for one more stop: the Magnolia Hotel. The hotel was pretty much a couple of apartment buildings that looked no different from all the older, brick apartments in the area. The only thing distinguishing it was its plaque. It's outward appearance, however, masks its history as the first piece of borough land to be owned by an African American businessman in Moses G. Hepburn. The buildings served as lodging for the African Americans living in the neighborhood, and Frederick Douglass even stayed there during his visit to West Chester.



Photo 2 – The Magnolia House hotel

Observation #2 (by Aidan Henken, PLN 403)

When I arrived at the East End Neighborhood driving down Market Street, The Charles A. Melton Arts and Education Center was the first sight I saw. I decided to park close by and begin my field observation. When looking at the Melton Arts and Education Center, you can sense the strong sense of community and pride the center boasts. The mural painted on the front of the building includes influential figures from the area as well as children learning and doing activities. Also, outside of the Arts and Education Center are two full court basketball courts as well as a nice sized lawn. Right across the street from the

Melton Community Center on Miner St. is the Highway Gospel Community Temple and then right down the road is the Bethel A.M.E. Church. Both churches seem run down on the outside as well as the housing and buildings surrounding these historical buildings are deteriorating. Housing in the East End Neighborhood seemed to be all over the place in relation to livability condition as well as cost. There were a few seemingly brand-new houses mixed in with some of the older homes. The housing designs within the neighborhood also differ drastically from apartment to stand alone houses as well as rowhomes. There are also some Housing Authority of Chester County apartments mixed in throughout the community in which the design seemed very tight in relation to space. However, right across the street from these complexes are brand new high-end townhomes. Because of this, I felt like I was entering a whole other zip code because of the dramatic change in conditions of sidewalks, sanitation as well as the obvious in housing options.



Photo 3 – Bethel A.M.E. Church

Observation #3 (by John Newman, PLN 403)



Photo 4 – A scrap yard in the neighborhood

When traveling through the East end neighborhood of West Chester, PA there was quite a variation of building types and conditions. Within blocks of each other you could find cheaper more affordable housing next to higher end upper class housing. My first stop was the Charles a Melton Arts and Education Center, here I found a nicely painted mural of a few individuals directly on the front of the center. Overall the building was fairly large and was on a decently sized piece of property. Although the property unfortunately had a decent amount of trash and litter, appearing to not be taken care of frequently. The Arts Center had two 2 basketball courts, blacktop area and a section with picnic tables on the property which I thought to be very nice. My next stop in the east end behind the center, Good Will fire company. This fire house was very nice and located on E union St. There were various other churches in the region also. Such as, Mount Carmel and Milestone events. Both churches were in good shape and appeared to be flourishing and doing well. From here I worked my way through the neighborhood

coming up to what I appeared to be a scrap yard of some sort. Although this was located on the far side of the community it did not appear to be the nicest visually speaking. Within no more than 2 blocks I was greeted with a very nice few block span of higher dollar newly built townhouses. After grabbing a few pictures, I headed down South Adams St. where I was quickly greeted with older homes. Unfortunately, some of these homes needed some obvious work on the outside of the homes, overall though the homes were not too bad. This area was between the Melton Arts Center and these newly developed homes. I enjoyed my time walking the east end community, I found it to be eye opening how quickly these newer nicer houses are closing in on their tight community.

Additional Pictures of the Neighborhood



Observation #4 (by Dan Rafalovitch, PLN 505 and Rich Alimonti, PLN 403)



Photo 5 – The Star Social Club

There is also some beautiful artwork surrounding the area that the West Chester Community takes pride in. While walking, we noticed some interesting contrasts within the neighborhood itself. Walking away from Market Street and into the neighborhood, there are many signs of gentrification. New townhouses are in abundance, with nicely-manicured lawns and gardens. Immediately next door to these developments are many industrial buildings, with a variety of uses. These have no doubt been repurposed as the years have passed. It shows the differing perspectives, with residences and workplaces side by side. Gentrification can be something of a double-edged sword, as the character and composition of a neighborhood can change drastically, which is especially important for this historically black neighborhood with a great history.

Our team observed the neighborhood taking pictures of social gathering hot-spots and any economic hubs. No doubt, the city of West Chester has a lot of offer when it comes to these areas. Starting off with the former Star Social Club, located at 212 East Market Street, was once the longest-running club of its kind in all of Pennsylvania. Founded in 1896, it is rumored that many famous musicians have played at the Star. Founded a few decades earlier in 1863, the Magnolia House is a great guest house for all of those that come to visit downtown West Chester and places like the Bethel African Methodist Episcopal Church. Founded in 1818, this sacred building has been a gathering place for the African American Community for over 200 years! This church was declared a National Historic Landmark in 1972. In the next picture, you can see the old-fashioned outdoor basketball courts at the Melton Center. The Melton Center offers some great open, green space for any park activity or exercise.



Photo 6 – A mural at the Melton Center

Observation #5 (by Abbey Cadden, PLN 505)



Photo 7 – West Chester Recycling

Throughout the observation, I noticed that a stream runs through a portion of this neighborhood. Afterwards, I researched this stream and found that is Chester Creek. In 2017, the Pennsylvania Department of Environmental Protection listed Chester Creek as impaired for siltation, water and flow variability, and habitat alterations. The first two sources causing this impairment is “urban runoff/ storm sewers”. The Chester Creek runs through the neighborhood. Given the urban environment and saturation of impervious coverage in the neighborhood, one can better understand the connection between impervious coverage, lack of greenspace, urban runoff/stormwater sewers, and water quality in nearby waterways. While stormwater runoff is a concern, there are greenspaces within the neighborhood that assist with reducing runoff and

mitigating the associated negative impacts. For example, the Charles A. Melton Center has greenspace, playfields, and community gardens that stretch across three-fourths of a city block. There are certain areas with newly constructed townhouses that have treelined street and lush green grass. There are also a number of public housing structures with grass running along the corner unit, but they do not contain treelined sidewalks. There are a handful of industrial businesses in the neighborhood that may impact the local environment (e.g., large storefronts driving impervious surface space; air, water, and soil pollution through heavy metal, VOC, and chemical deposition; and more). There is a recycling center, paper and chemical company, concrete and machinery business, a race engine shop, and a firefighting foam testing facility.

Observation #6 (by Julia Bonomo, PLN 505)

The East End of West Chester has some notable changes compared to the rest of the West Chester Area. Upon observation, most of the stormwater drains are located on busier roads, such as PA-3 (East Market Street). The East End lacks a nice representation of green spaces, however there are a few scattered around the area. According to West Chester Borough’s website, the stormwater drains work on protecting water quality and preventing high volumes of runoff from causing flooding in developed areas. The areas in the East End could use a “clean-up,” therefore I would not consider them to be developed. Within the side streets, the stormwater drains are located on the corners of street intersections. There are not many, if not at all, within the streets themselves. In the pictures provided, along East Miner Street and South Franklin Street, there are multiple stormwater drains on the corners of the intersections. The same applies for street intersections along South Adams Street. Along PA-3, there are also stormwater drains located in parking lots. There are not many green spaces in the East End. Throughout East Market Street, there are multiple trees and shuberry. In front of the Charles A.

Melton Center, there is a sign with shuberry and plants located in front of the parking lot, in the middle of the entrance and exit. On the side of the center, there are green spaces with tall shrubs and small plants. Around TD Bank, similar green spaces exist as well. However, in the side streets of the East End, there are not many green spaces. Most of the “green” seen is from trees scattered around the area and within the homes. Some of the green spaces look nice, while others look messy. Along the construction strip of East Barnard Street, there are trees planted along the fence. Some areas of the fence have shrubbery coming out of and scaling the fence. Overall, the stormwater drains are in good locations. Within the parking lots, the drains are located in areas where cars will not be parking. This, along with drains in the street intersections, is good placement regarding the lesser amount of water pollution. Compared to the stormwater drains on PA-3, these drains have cars frequently driving over or near them, which can increase the amount of water pollution. Therefore, certain processes will be conducted to reduce the water pollution.



Photo 8 – A large impervious surface/parking lot

Chapter 2: Cultural and Physical Characteristics

1. Overview of the Chapter

By Ryan Cavanaugh, PLN 403

This chapter contains maps and infographics to show the many different features of West Chester's East End. The first map, "East End Neighborhood Land Use," shows the various types of zoning parcels within the East End. The map includes designated space for residential living, restaurants and retail stores, entertainment and recreation, and many more zoning uses. The second map, titled "East End Neighborhood Zoning Districts," highlights the three zoning districts of East End, including the block that is under HARB supervision. These districts consist of the Transportation Corridor Overlay District, the Neighborhood Conservation District 2, and the Town Center District, all of which have their own particular uses within the community.

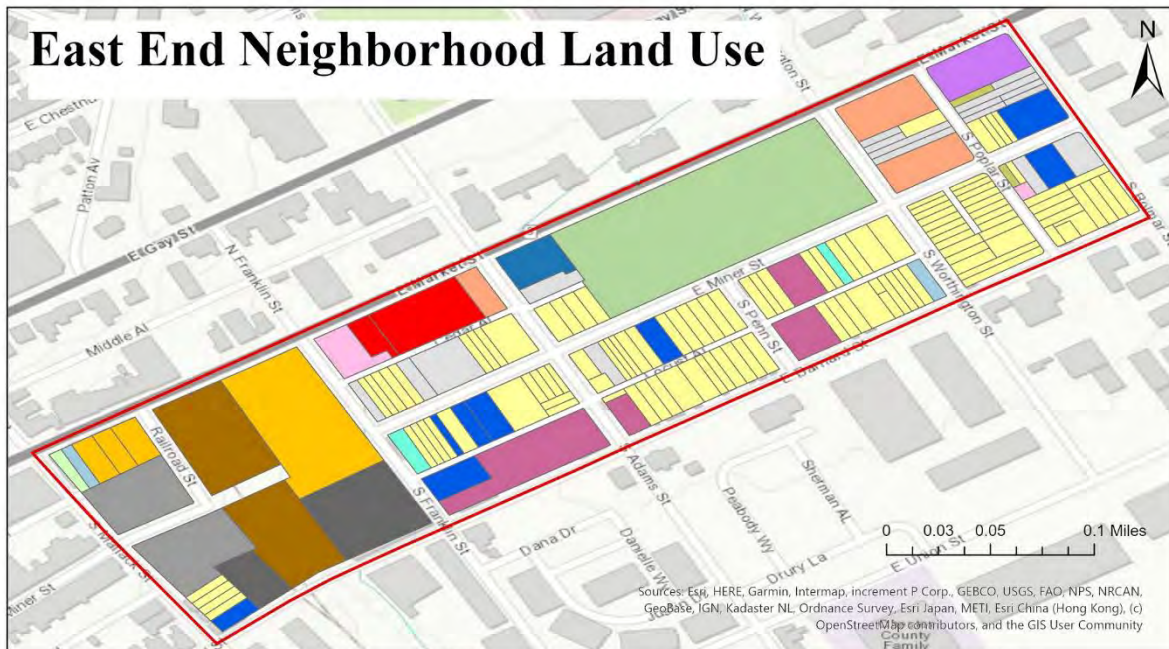
The third map, "East End Historic Sites," displays the 9 historic sites located in West Chester's East End. These sites consist of churches within the community, along with an art and education center, a hotel, a Sister's Hall, and a social club, which all have historical ties to the community. The fourth map, "East End Street Trees, Impervious Surfaces, and Water," shows the location of trees, waterways, and impervious surfaces within the east end neighborhood. The fifth map, "East End Property Values 2017," displays the property value for each parcel of land and property throughout West Chester's east end. The sixth and final map, "Vacant Buildings," shows the vacant housing units by block group within West Chester's East End Neighborhood.

The first infographic represents a demographic summary of West Chester's East End community. It includes statistics on income, education, and employment rates. The second infographic displays housing statistics within the East End. It provides information such as owner-occupied units vs renter-occupied units, along with the percentage of vacant housing units within the neighborhood. The third infographic is a housing profile of West Chester's East End neighborhood, which provides information on housing units and their status throughout time, and it also provides a look five years into the future. The fourth infographic provides a commuter profile of West Chester's East End, with information such as the percentages of people that walk, bike, drive, and take public transit to work. The fifth infographic displays the percentage of houses in the East End community that were built in each separate decade, from 1939 to 2020. The sixth and final infographic is a tapestry segmentation of West Chester's East End neighborhood with information on key facts, education levels, and age profiles within the community.

2. Maps, Charts, and Infographics

1. Land Use Characteristics (by Hadjer Ahner, PLN 505)

Each parcel in the Borough of West Chester is zoned for a particular use. Several parcels are zoned for a mix of residential occupation. Other lots are dedicated to the operations of the local government, as well as commercial, professional, railroad, recreational, churches, and miscellaneous uses.



Land Use Codes	Commercial OBY only	Restaurants, Stores (Retail)
Light Blue: Apartments (4-19 Units)	Light Green: Entertainment, Recreation	Purple: Shopping Centers
Dark Blue: Banks, Saving & Loans	Grey: Local Gov't (Townships & Boroughs)	Light Yellow: Single Family/Cabin
Olive Green: Barns, Stables, Pools, Misc Bldg	Cyan: Multi Family/Dorms/Singl	Light Grey: Vacant Land Residential
Pink: Chester County Property	Light Green: Non Profit Organization	Dark Grey: Warehouse
Blue: Churches	Orange: Office Bldgs/Laboratory/Library	Red Outline: East End Boundary
Red: Commercial Garage/Shop/Car Dealers	Brown: Railroads	

Parcel codes retrieved from West Chester County Records. <https://chesco.org/DocumentCenter>

Prepared by Hadjer Ahner

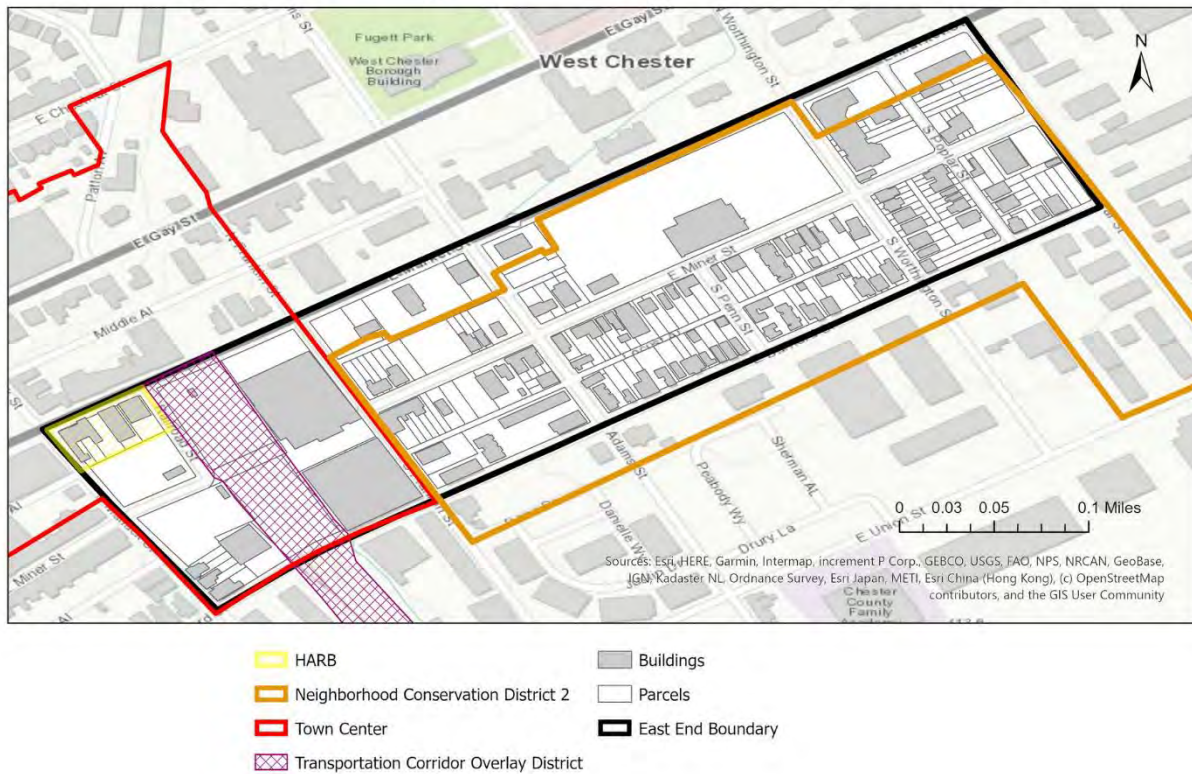
Figure 2 – East End Neighborhood Land Use

East End Neighborhood is located in three zoning districts with different regulations. One block on the western side of East End is included in HARB.

- HARB is the Board of Historical and Architectural Review. The board oversees the applications of all constructions and modifications that take place in the historic district. HARB insures the continuation of the preservation of historic sites and maintains the integrity and character of the borough.
- The Transportation Corridor Overlay District promotes the use of SEPTA and prolongs the company’s right-of-way for mass transportation, particularly rail.
- The Neighborhood Conservation District 2 (NC-2) encompasses moderate- to high-density neighborhoods. NC-2 includes a mixed type of residences and allows for professional use in designated areas.
- The Town Center District (TC) accommodates appropriate uses in the Central Business District, along with the Retail Overlay District. The regulations in TC preserve the character of the historic retail and commercial composition of the downtown, as well as the adjacent residential zoning districts. In

addition, the regulations of the TC District promote the provision of pedestrian amenities and limits commercial uses that attract high volume traffic and require large parking and outdoor areas.

East End Neighborhood Zoning Districts



Zoning lines are drawn as depicted on the zoning and district overlay maps of the Borough of West Chester.

Prepared by Hadjer Ahner

Figure 3 – East End Neighborhood Zoning Districts

2. East End Historic Sites (by Mahmoud Sheikh, PLN 505)

Figure 4 (below) displays the various historic sites located all throughout the East End. There were 9 sites in total. Included among these sites are 3 churches (St. Paul’s Baptist, Bethel AME, and St. Luke’s Uame), the Charles A. Melton Arts and Education Center, the Magnolia Hotel, the Tent Sister’s Hall, the Star Social Club and the neighborhood of Mud Row. Most of these sites are concentrated within the neighborhoods by East Miner Street, South Adams Street, South Franklin Street, and South Bolmar Street. These neighborhoods are predominantly African American and the sites located within them were made by and for the African Americans living there. The sites stand as symbols of the history and culture of the East End’s African American community. The 3 churches in those neighborhoods are all black churches. The Magnolia Hotel was owned by the first African American to sit on the West Chester borough council and was established to serve the lodging needs of the African Americans community there. The Tent Sister’s Hall served as the home for an antebellum African American female mutual aid society. The Melton Center has served the educational, recreational, and social needs of the East End’s

African American community for over one hundred years and it is still seen as an important institution for strengthening community ties in the East End.



Figure 4 – East End Historic Sites and Assets

3. East End Property Values (by Patricia Quinn, PLN 505)

The East End has an almost even mix of inexpensive and expensive properties. One thing to note is that the expensive properties are larger parcels, so they may not be single-family homes. With most of the neighborhood listed as renting (55%), this map gives the impression that many people either rent or own a lower-priced single-family home on a small plot of land, or they rent an apartment in one of the larger and higher-valued apartment complexes or multi-family dwellings within the East End.

East End Property Values 2017

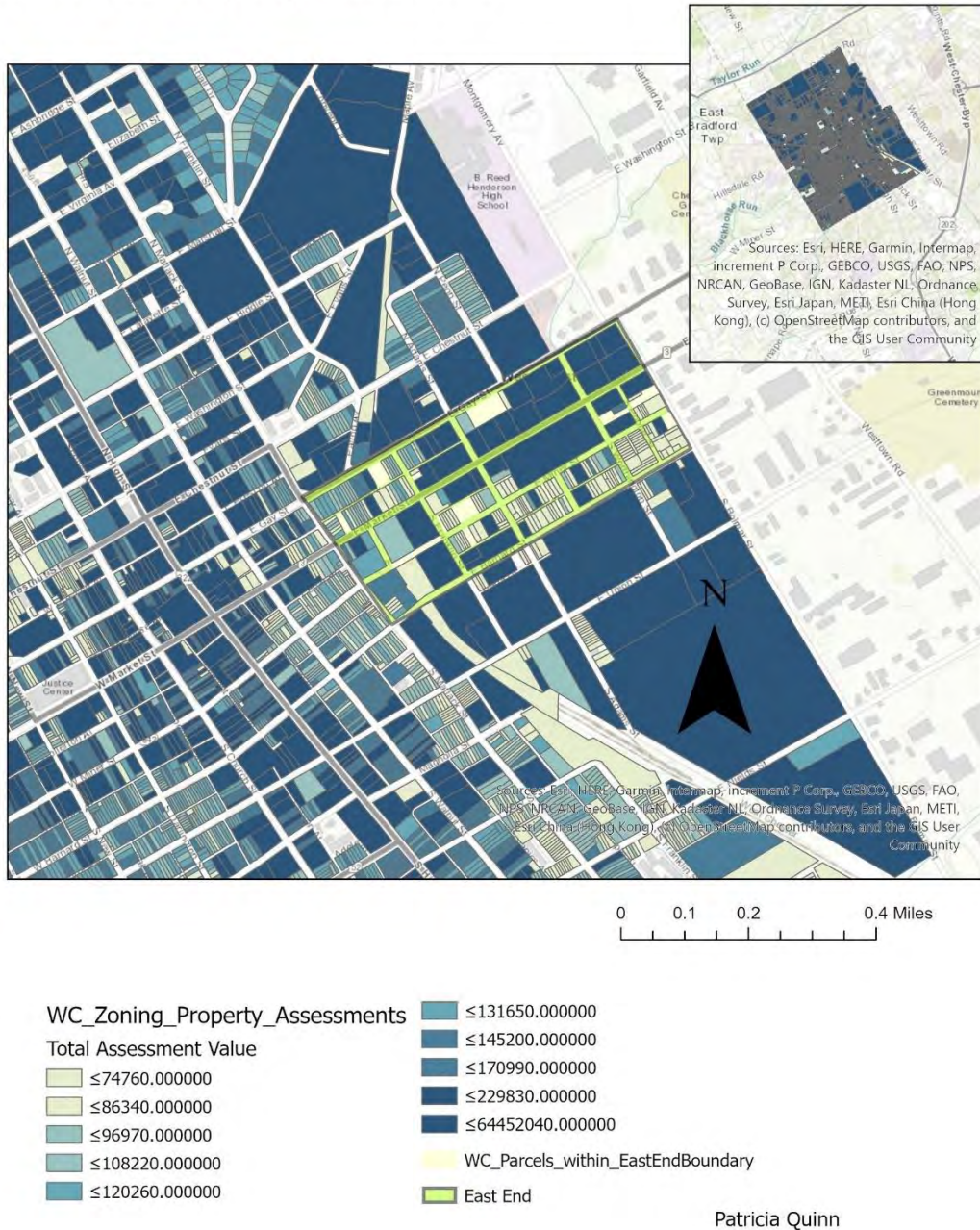


Figure 5 – East End Property Values 2017

4. Housing Characteristics (by Aidan Henken and John Newman, PLN 403)

This infographic (Figure 6) is showing basic housing statistics within the East End Neighborhood. Out of the 226 housing units, 28 of them remain vacant. The vacancy percentage within our neighborhood boundary comes to 12% which is slightly high compared to the remaining parts of West Chester which hover around 6-8%. The remaining occupied houses account for 89 housing units that are owned and 108 units that are rented. The last statistic shows households in relation to the poverty level.



2020 Housing Affordability	
Housing Affordability Index	70
Percent of Income for Mortgage	30.7%

Data Note: Persons of Hispanic Origin may be of any race.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2020 and 2025.

September 16, 2020

Figure 6 – Housing Stats

By Looking at the housing affordability index, we are able to conclude that our study area is well below the average, or desired mark, of 100. Compared to the more residential areas of the borough, its affordability index hovers at 94, which is much closer to the 100 average that we want to see. Since our study areas number is so low, we can conclude that housing in the East End Neighborhood must not be

very affordable. Especially when you see that the citizens are spending about a third of their income on their mortgage.

This report (Figure 7) serves as another visual that shows several time series. One of the time series shows housing units and their status from 2020 - 2025. As we can see from this time series, housing will continue to increase in units throughout the next five years. We can also see that over the next five years, The East End Neighborhood housing units are expected to grow in median and average value, thus making it less affordable. Over 20% of the housing in the east end was built pre-1939. Making these houses to be considered quite old.

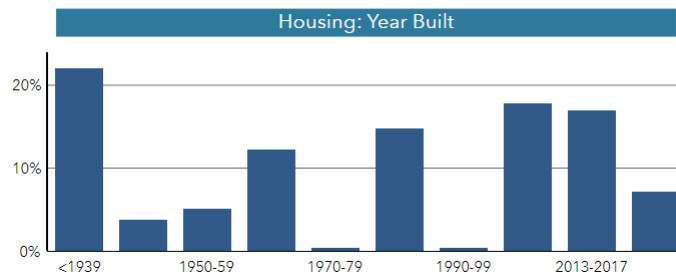
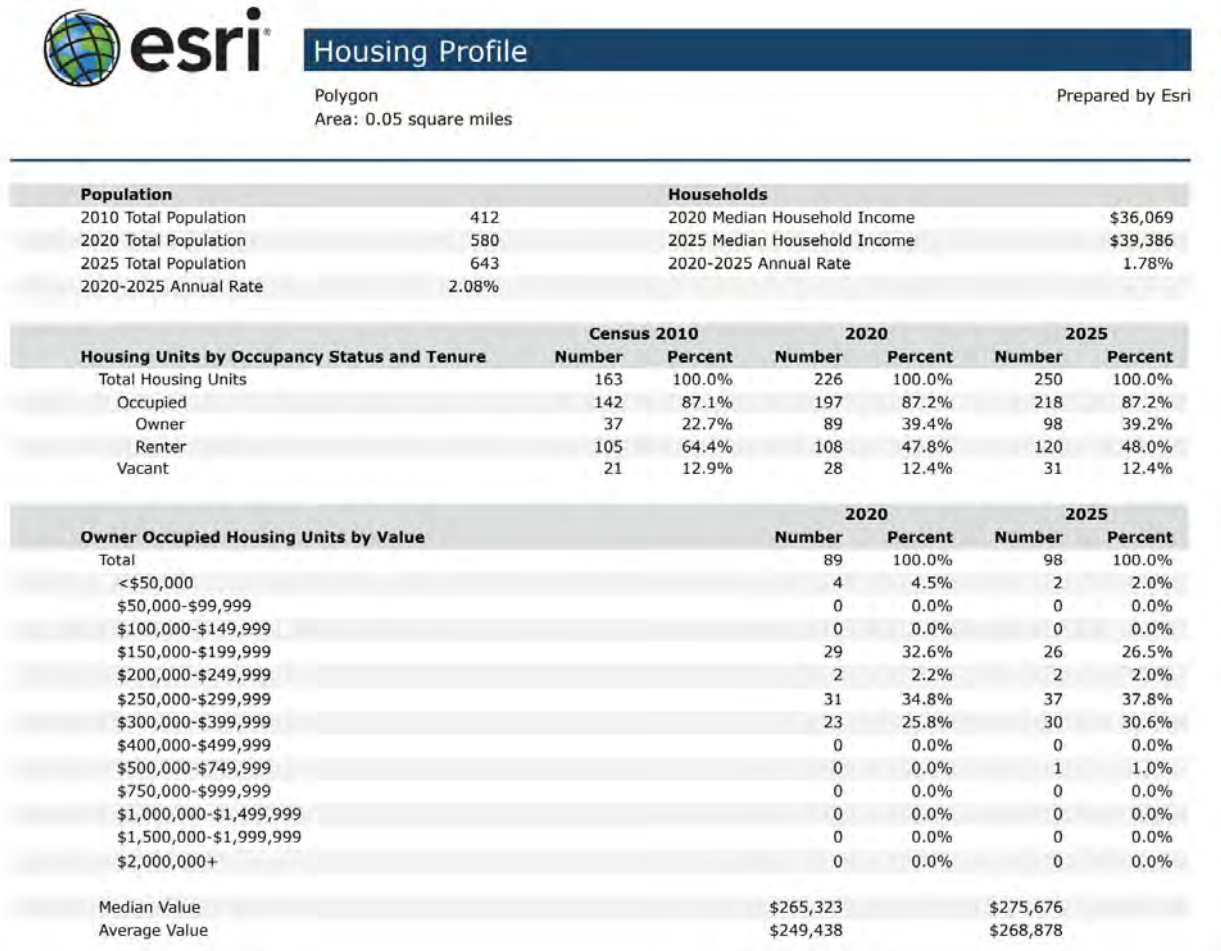


Figure 7 – Housing Profile

5. Sidewalk Conditions (by Emily Reilly, PLN 403)

This map displays the sidewalk coverage in the east end as well as the surrounding west chester area. Sidewalk coverage is important to notice in a region because it is a part of the environment and affects how people get around. As you can see the sidewalk coverage in the East End is very broken up in a few places. This could be unsafe for children and people that need to walk to various places such as work. In addition to the broken up local street sidewalks, there is also a state road on the edge of the East End. This road moves very fast and can be dangerous for walkers, it is important that this environment has adequate sidewalks and safety measures.

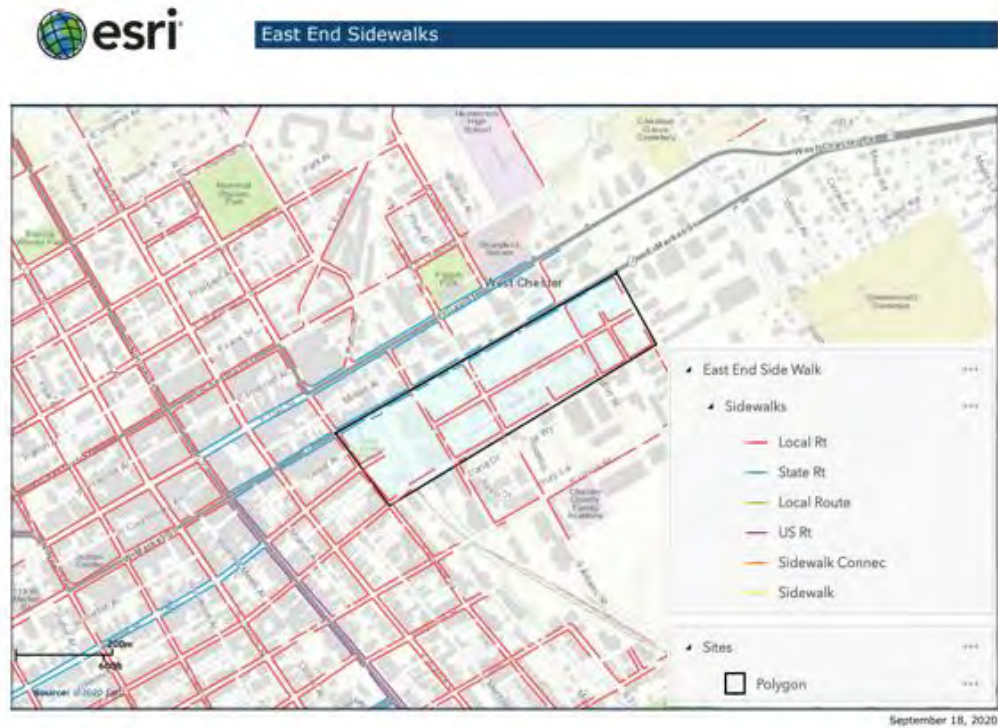


Figure 8 – East End and West Chester Sidewalks

Chapter 3: Social and Economic Characteristics

1. Overview of the Chapter

The historic East End neighborhood is in West Chester borough in Chester County, stretching from E. Barnard St and E. Market St., between N. Matlack and S. Bolmar St. The East End is West Chester's historically black neighborhood, and has a long cultural history. Generations of residents have felt a sense of place provided by the East End neighborhood. In recent years, gentrification and changing demographics have led to changes for the neighborhood and its residents. This report looks at the East End neighborhood, as well as the Borough of West Chester to provide a more complete picture of the surrounding neighborhoods. Additionally, data for Chester County is provided for context within a larger area. The report focuses on income, education, employment, health, and poverty. Special consideration is given to the impacts of the ongoing COVID-19 pandemic and its local effects.

The median household income of the East End neighborhood is much lower than that of West Chester Borough, as is the per capita income. Predictably, the net worth is also much lower for the East End. It is worth noting that Chester County's median household income is significantly higher than that of the West Chester Borough as well. The poverty rate is higher in the East End than in the borough or Chester County. When considering unemployment, commuter rate, and the high percentage of white collar occupations in the East End neighborhood compared to the borough itself you start to see an obvious trend of gentrification. Local opportunities for residents born and raised in the East End neighborhoods is limited to retail, construction, and auto manufacturing. Whereas residents of the same neighborhood who can afford to commute to work can access better paying opportunities.

Overall, the Historic East End lacks significantly in educational attainment compared to West Chester Borough and Chester County for many reasons which include COVID-19's negative impact. The Melton Center does a big part in increasing the education levels of its residents due to its ability to provide convenient after school programs that allow residents to continue learning even after they leave the classroom. Once COVID-19 is no longer a huge problem, I do believe we will start to see a shift toward a higher percentage of white collar employment in the Historic East End, similar if not slightly less than West Chester Borough and Chester Counties increased percentages. The highest average educational attainment in the East End is High School Diploma.

2. Maps, Charts, and Infographics

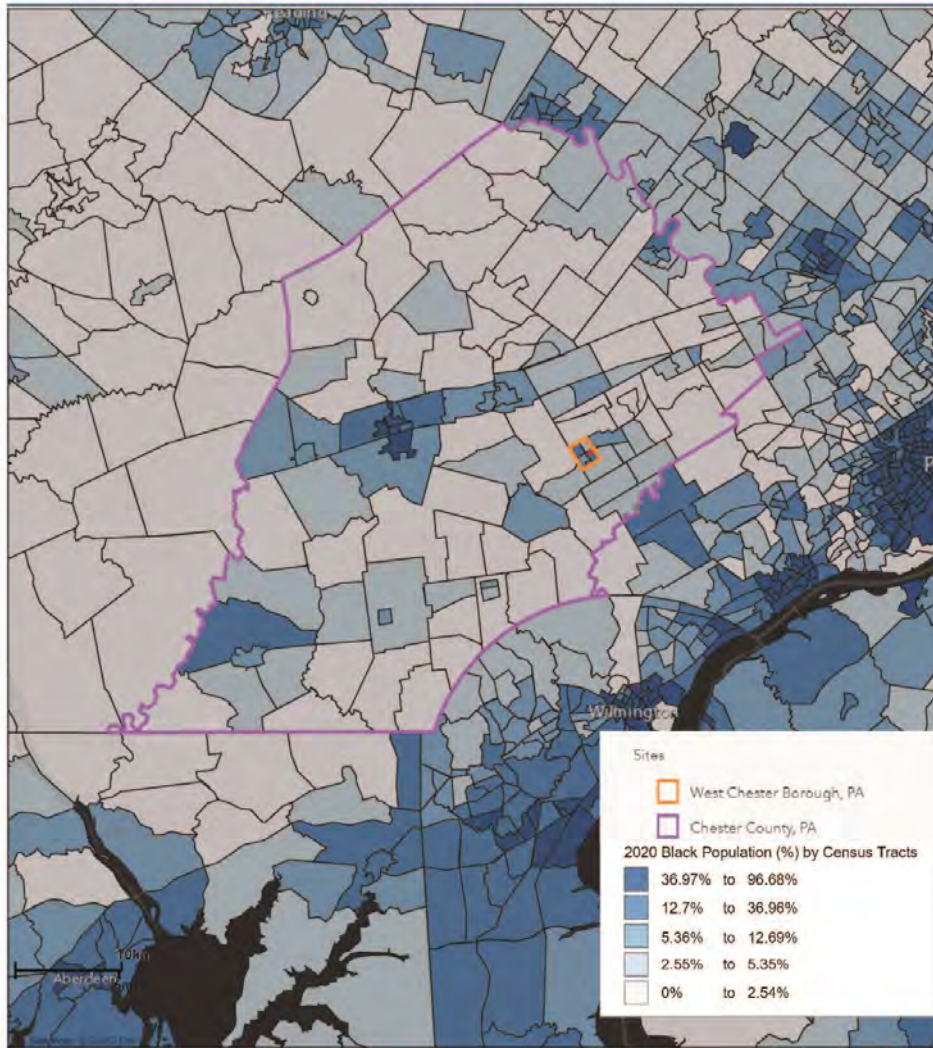
1. **Black Population** (by Jonathan Brouse, PLN 403)

This map (Figure 9) presents population percentages by Census tracts for Chester County. It shows the percent of the population that identifies as Black. Chester county, outlined in purple, shows that it has a lower percentage of Black population as compared to the surrounding counties and census tracts. This map allows us to compare the average percentage for census tracts to the average percentage shown on the West Chester Borough map.



esri

2020 Black Population in Chester County



September 18, 2020

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Page 1 of 1

Figure 9 – Black Population in Chester County

This map (Figure 10) presents population percentages by Census tracts for Chester County. It shows the percent of the population that identifies as Black. Chester county, outlined in purple, shows that it has a lower percentage of Black population as compared to the surrounding counties and census tracts. This map allows us to compare the average percentage for census tracts to the average percentage shown on the West Chester Borough map.

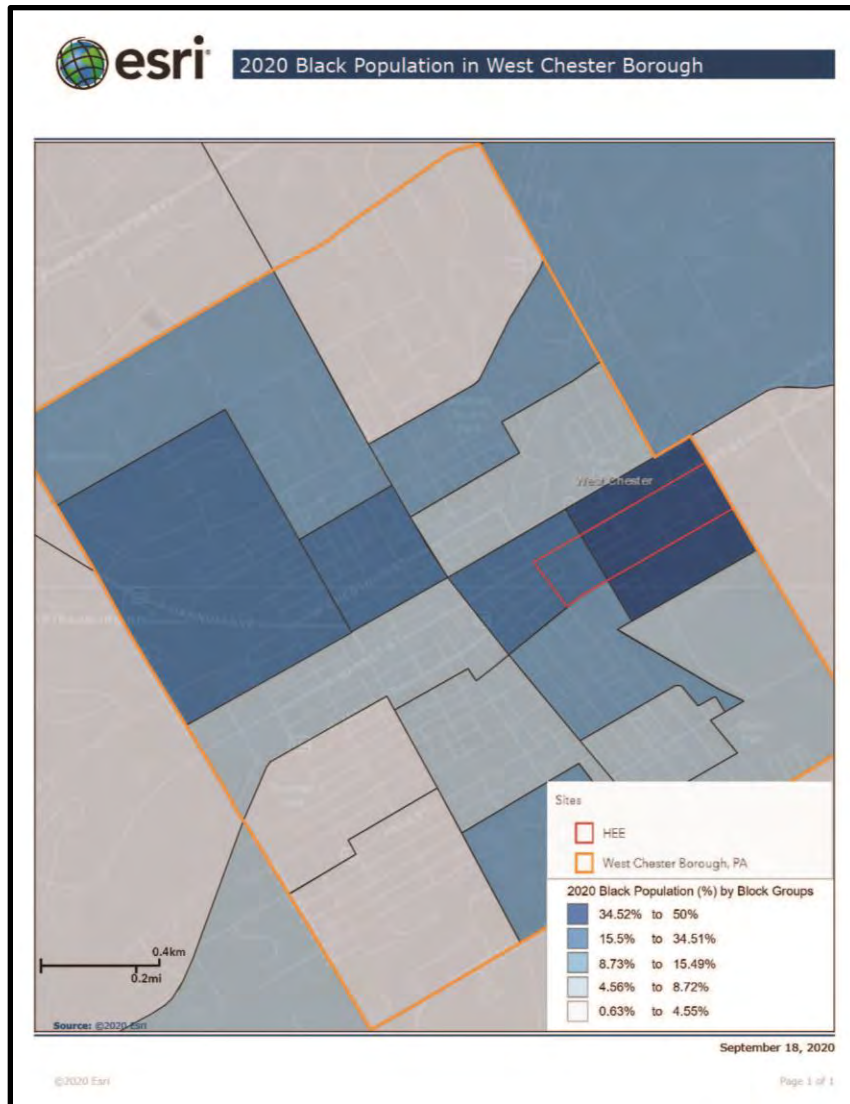


Figure 10 – Black Population in West Chester Borough

2. Demographic Profiles (by Aidan Henken, Alex Sankaran, Evan Gardi, and Wesley Hicks, PLN 403 and Dan Rafalovitch, PLN 505)

This infographic (Figure 11) is showing a demographic summary of our study area. As you can see from the median household income, this is not a very wealthy area. Also, when looking at the education section, we can see that less than 50% of the population has a college degree of some sort and only 39% of this population graduated from high school. To compare (Figure 11), the borough of West Chester is at about 60% of the population and has a college degree of some sort. Also, the unemployment rate is way above the state average of 13%. This could be attributed however to the lack of schooling. In the East End neighborhood, 26% of households were below the poverty level, which is much higher than the Borough’s 20% rate. The Borough has a median household income of \$57,429, and a per capita income of \$28,943. The profile for Chester County as a whole paints a different picture. The median household income is \$101,310, with a per capita income of \$50,411. The median net worth is \$302,876. This leaves only 6% of households below the poverty level. The education level is highest when looking at the

county as a whole, while the East End neighborhood is the lowest. This can help explain the disparities in median and per capita income, as there is an association between income and education.

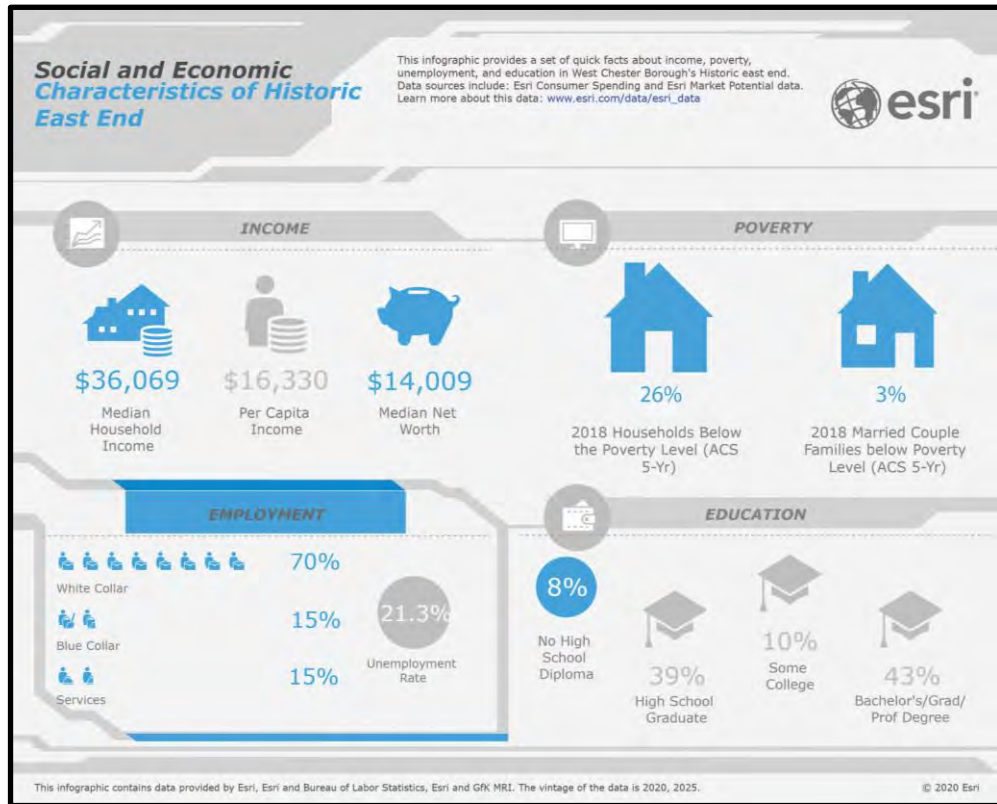


Figure 11 – Socioeconomic Characteristics of East End

In terms of education, 92% of the historic East End neighborhood’s residents graduate from high school. 39% of those students decide to end their education there and pass up attending a college or university. 10% of its residents go on to achieve some college education but never earn a Bachelor’s, Grad, or Prof Degree, which leaves the Historic East End with a 43% Bachelor’s/Grad/Prof Degree rate. In comparison, West Chester Borough and Chester County have a 7 and 6 percent rate of residents who never achieve a high school diploma. Where the Historic East End lacks compared to West Chester Borough and Chester County is the percentage of students who chose not to further their education past high school. Compared to the 39% of East End residents who end their education after high school, only 17% of West Chester Borough and 20% of Chester County residents decide not to further their education past high school. Finally, the historic East End’s total of 53% for residents who achieved some college education or earned a bachelor’s, Grad, or Prof Degree is substantially lower than West Chester Borough and Chester County’s totals of 76% and 74%.

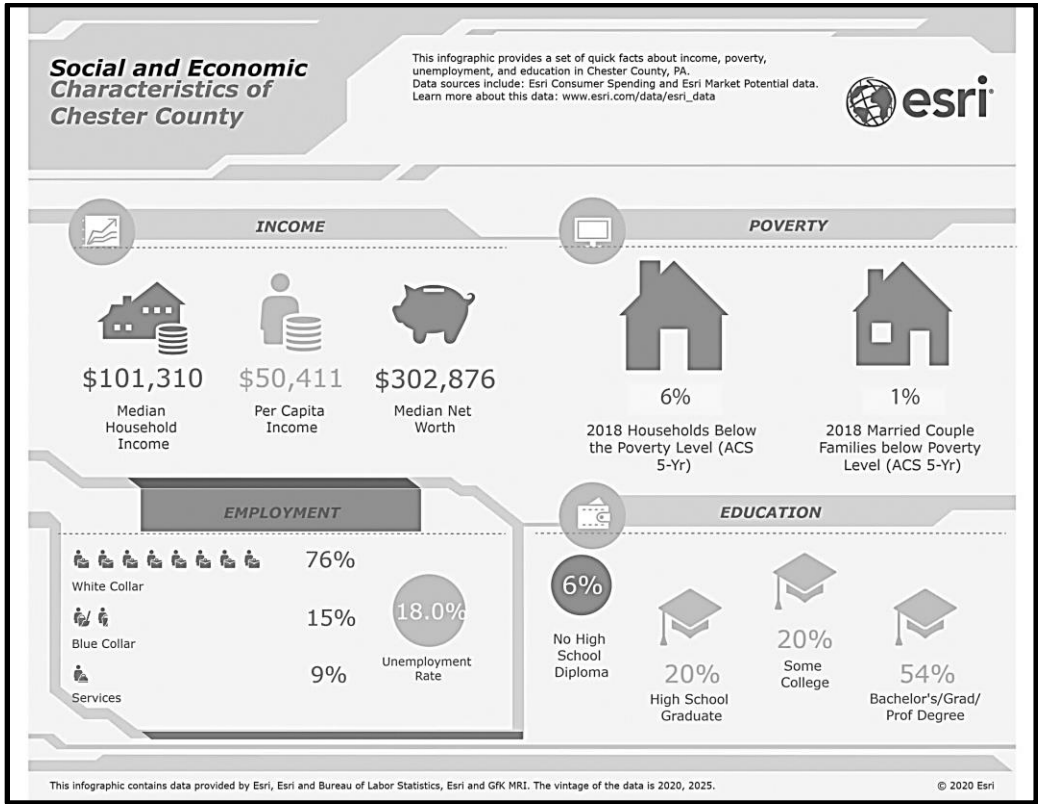
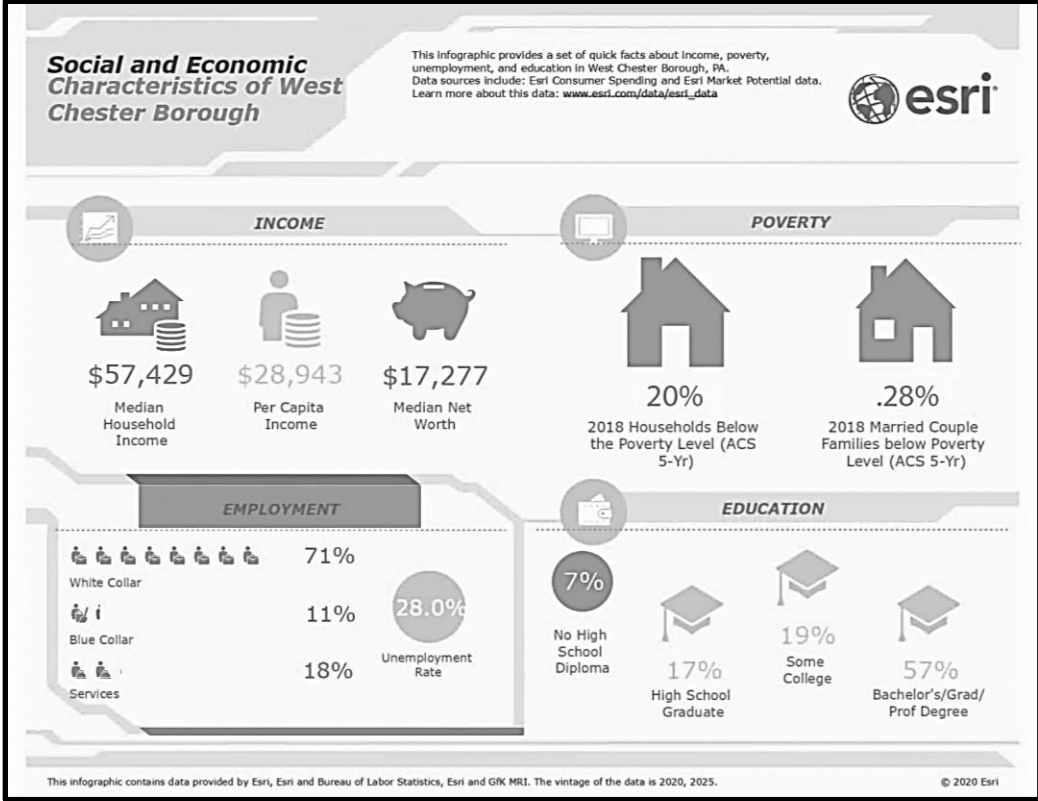


Figure 12 – Socioeconomic Characteristics of West Chester and Chester County

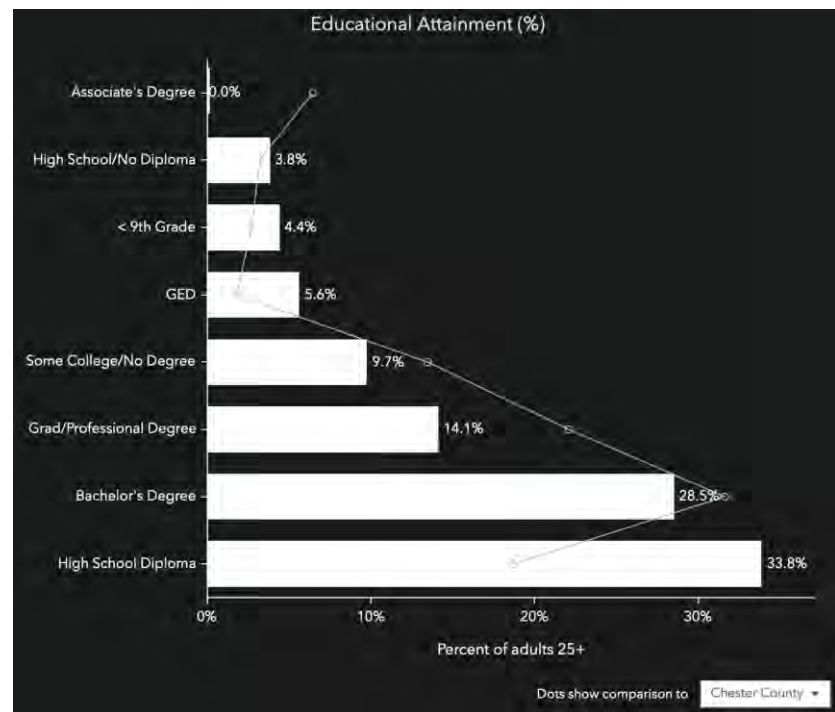
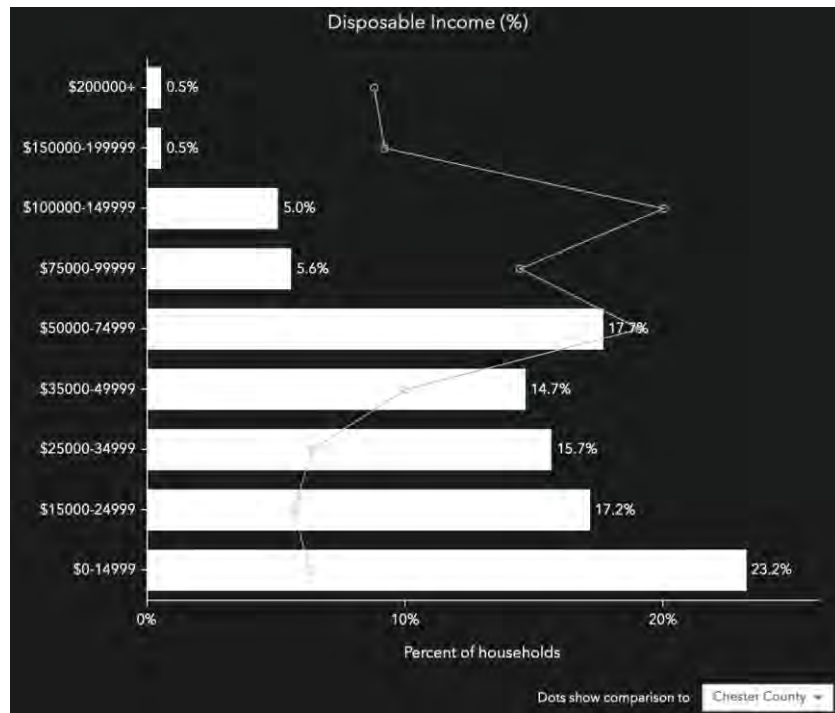


Figure 13 – East End compared to Chester County: Disposable Income and Educational Attainment

The last map (Figure 14) compares the highest average educational attainment in each block group. The educational attainment in the borough is predominantly bachelor's degree. The exception to this is the southeastern corner of the borough with High School Diploma. The East end lies in between block

groups 420293026.001 and 420293026.005. The neighborhood is primarily high school diploma. The Block group with the highest educational attainment was 420293023.001 located in the northwestern corner of the borough.



Figure 14 – Educational Disparities in West Chester Borough

3. Health and COVID-19 Impact (by Rich Alimonti and Michael Staropoli, PLN 403)

The East End neighborhood of West Chester, PA has a high poverty rate compared to the borough and the rest of Chester County based on population. Of the 525 residents of the East End neighborhood, 168 are at risk, that is over 30% of the population. And although a majority of the population has health insurance, 79.1%, this still leaves 21% of the residents of East End without health insurance. If one of those residents who are at risk and do not have health insurance, were to get Covid-19, they would be highly likely to not be able to pay hospital bills or possibly die due to the unavailability of healthcare. Compared to Chester County, the East End neighborhood's 30% at risk population is a significant amount more than the 25% at risk in the entirety of Chester County. One significant comparison to be made is the Median Household income, East End Neighborhood's being \$36,069 while Chester County's is \$101,310. This really shows the difference in poverty in the neighborhood to the county. One positive side of the East End is that there's not a large elderly population which is the main risk population for Covid-19. Chester County however in whole has a fairly large elderly population. The main reason the East End neighborhood is at risk for Covid-19 is due to lack of healthcare and poverty, leading to less medical attention or residents not being able to get the help they need or being in fear that the medical bills would be too high.

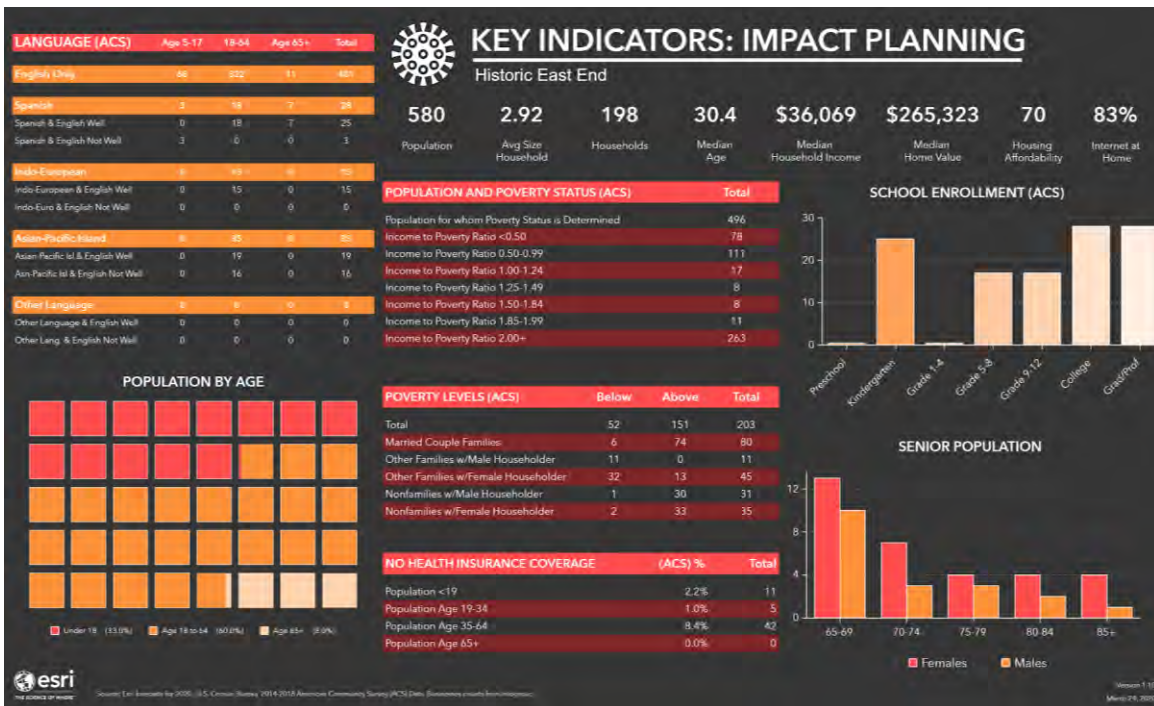
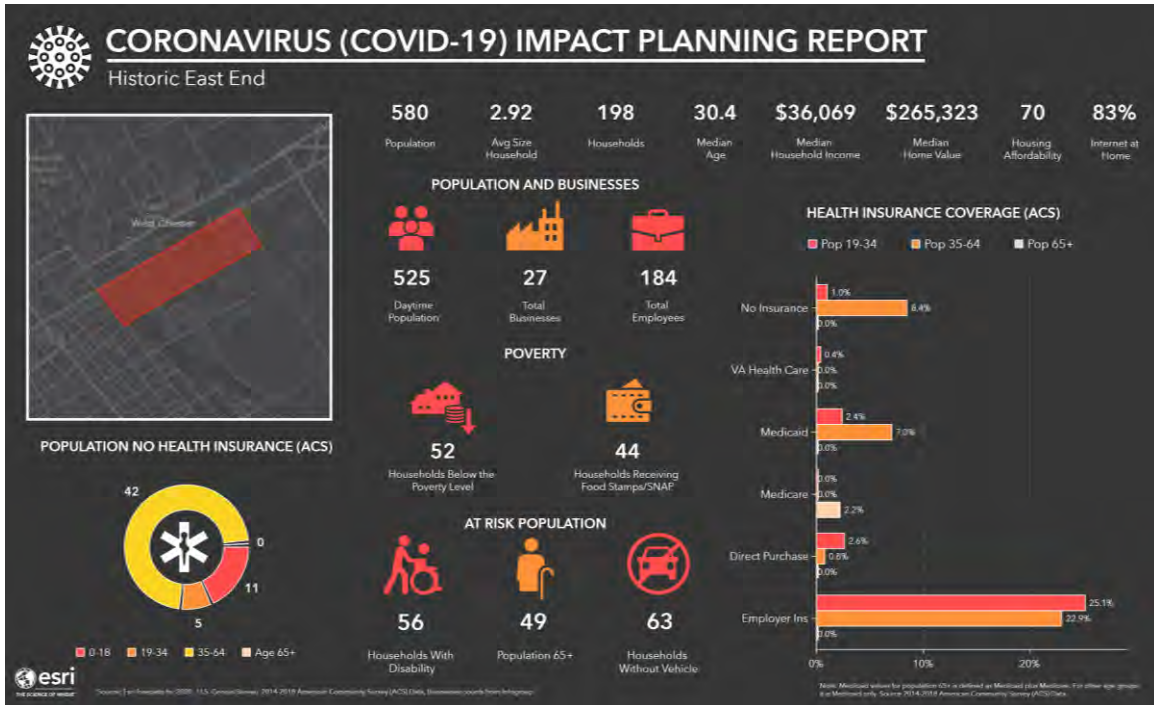


Figure 15 – COVID-19 Impact Planning: East End Neighborhood

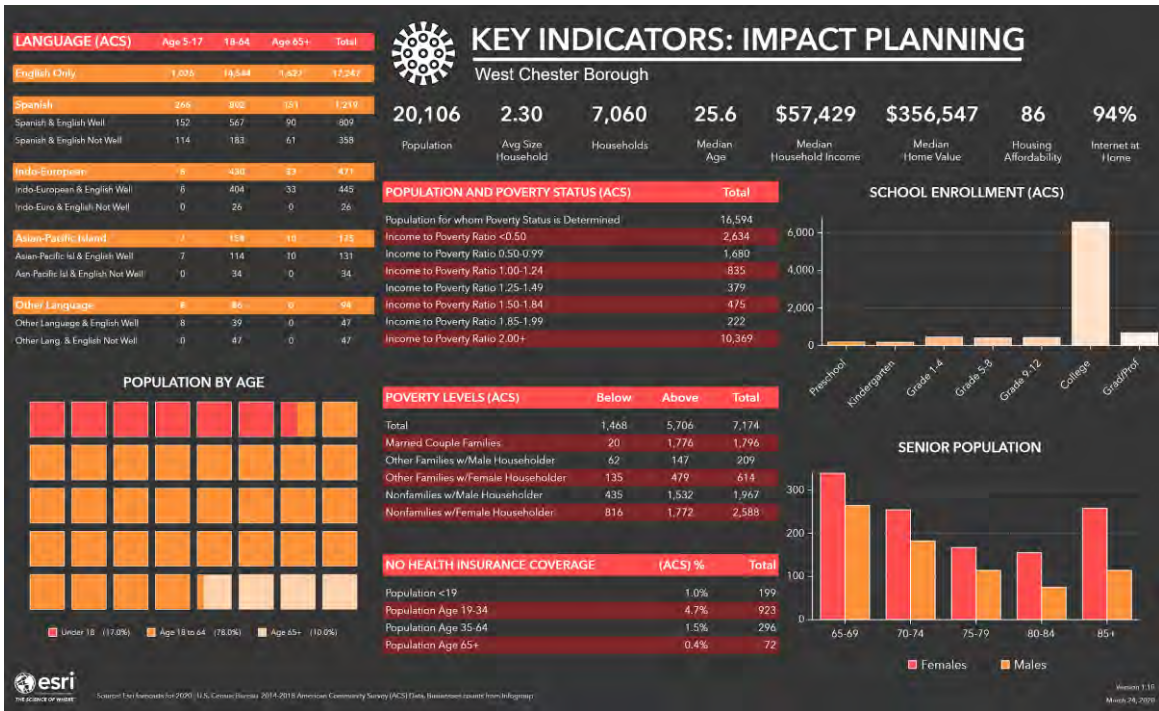
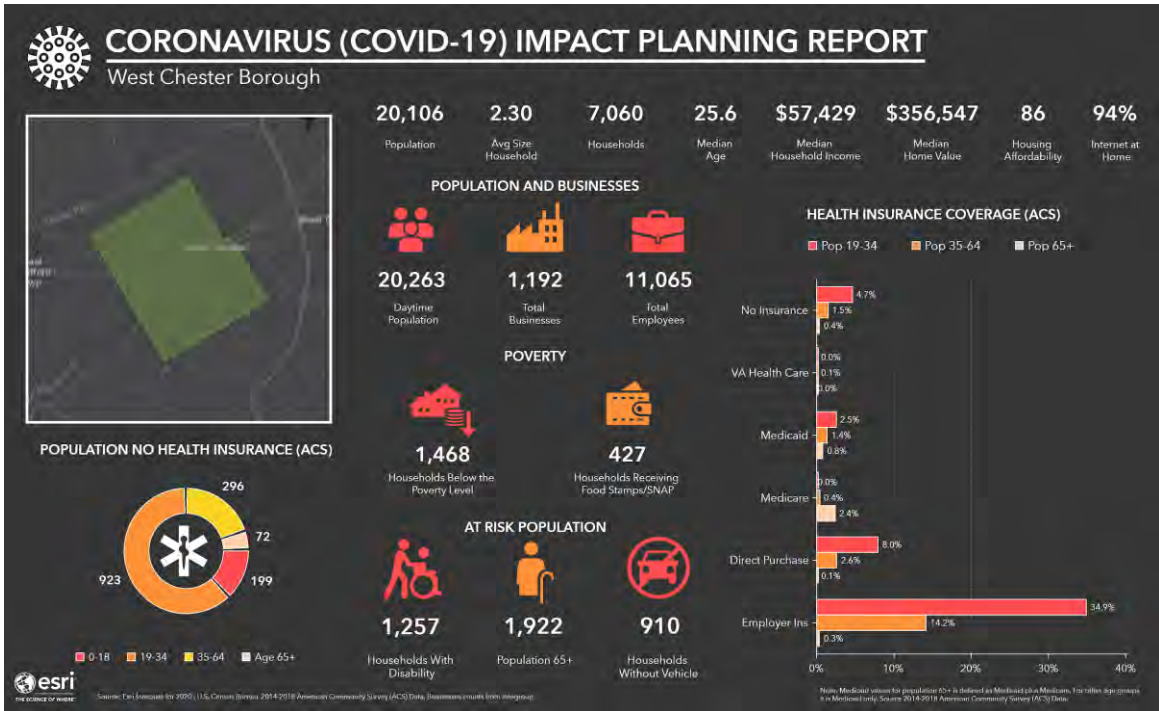


Figure 16 – COVID-19 Impact Planning: West Chester Borough

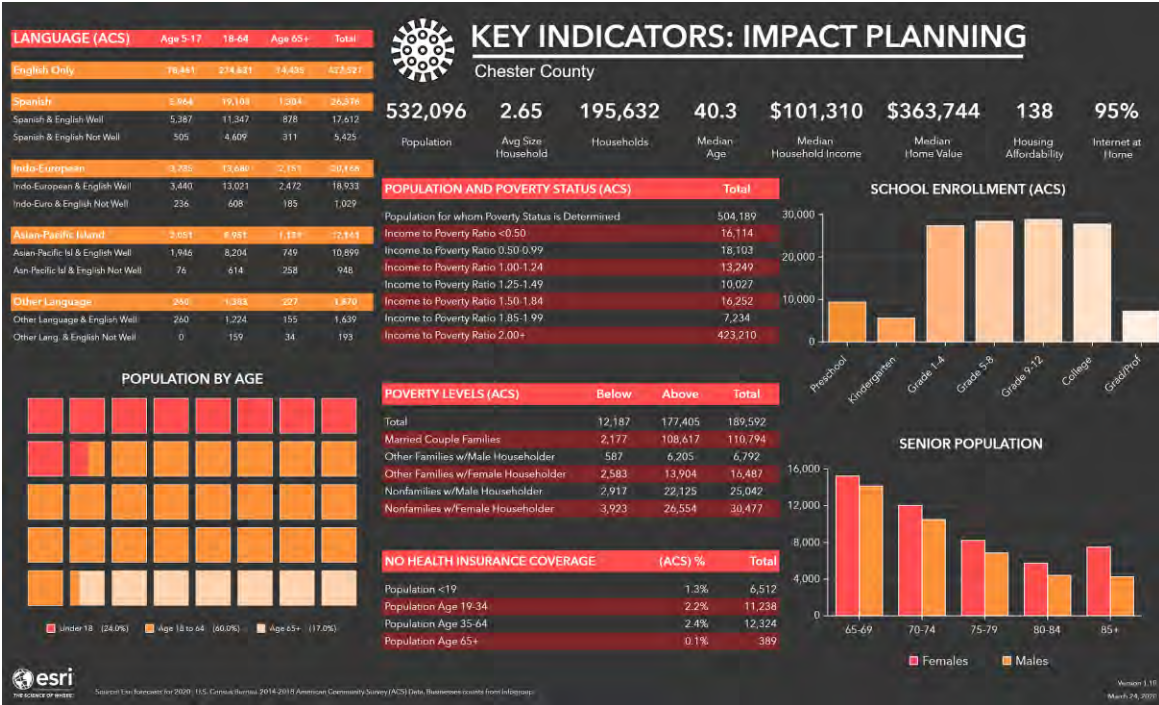
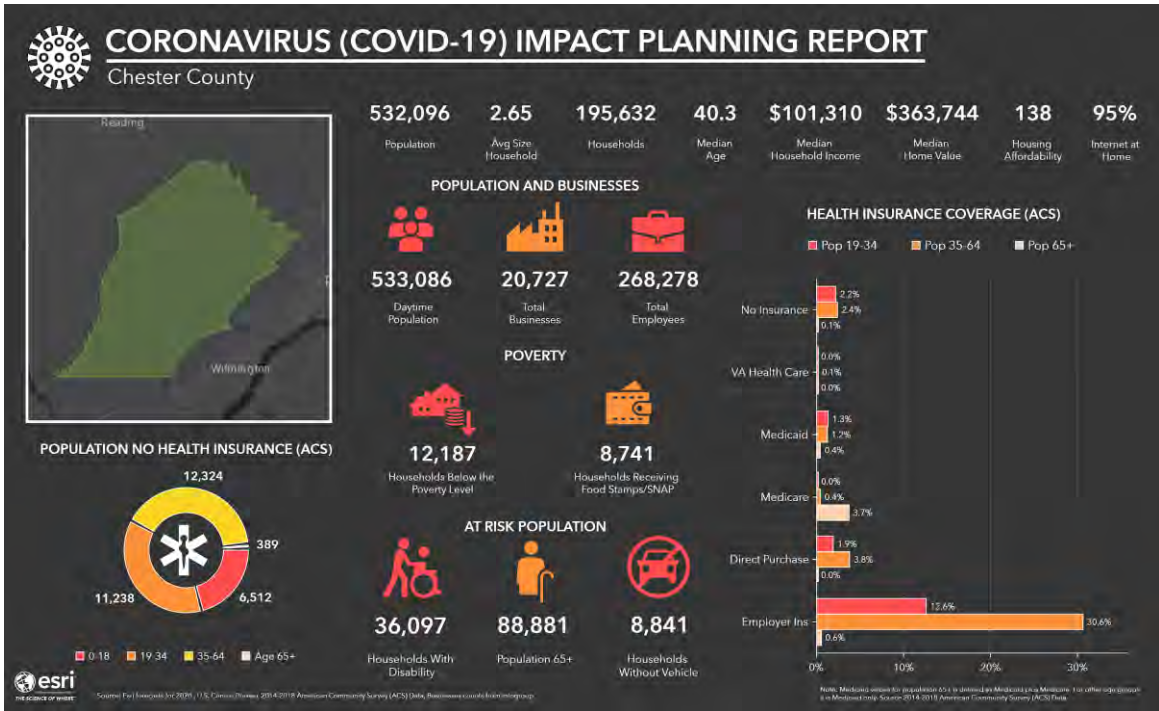
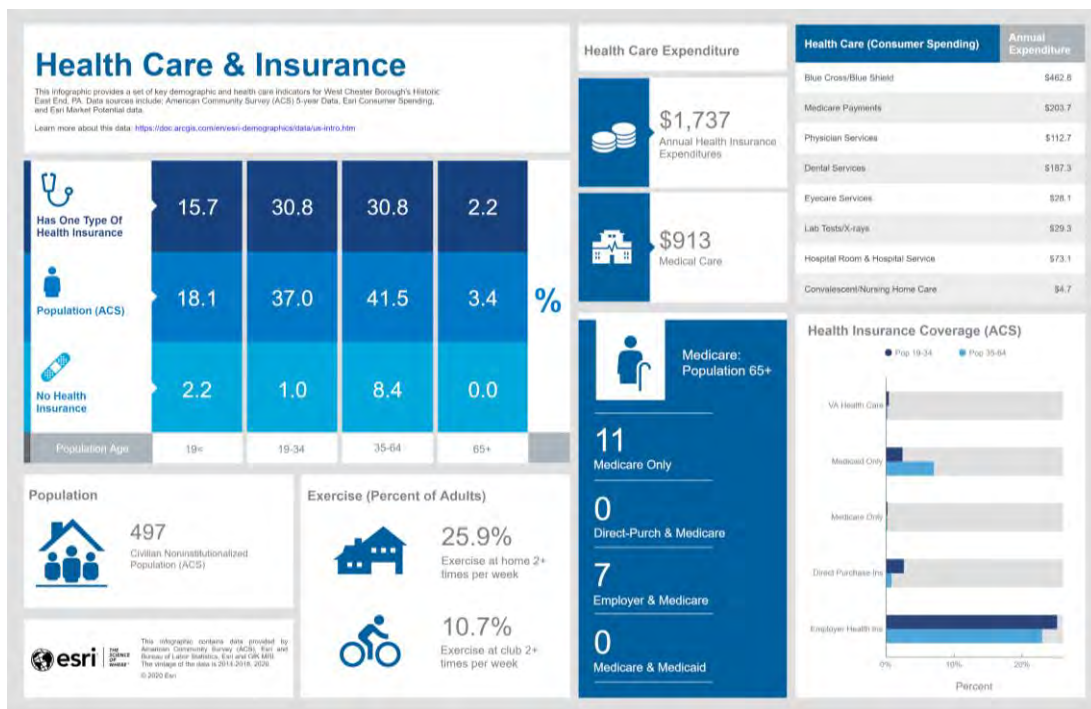


Figure 17 – COVID-19 Impact Planning: Chester County

The West Chester Borough has a population of 19,804, median age 25.6, and Chester County has a total population of 512,358, whereas the median age is 40.3. Meanwhile, the Historic East End had a population of 580. The annual health expenditures for West Chester Borough are \$3,040, more than

\$2,000 lower than Chester County at \$5,404. Clearly, you can see the difference in population between the Borough of West Chester and Chester County. The age difference, as well, is pretty significant. Of course, Chester County needs to spend even more, considering the median age is older than its smaller counterpart. The Borough spends \$1,640 on Medical Care, but the whole county spends \$2,936. In Chester County, 19,125 adults are on Medicare only, 21,199 rely on Direct-Purch and Medicare, 16,473 are on Employer and Medicare, and 2,078 are on Medicare and Medicaid. In the West Chester Borough, though, 481 adults are on Medicare only, 387 rely on Direct-Punch and Medicare, 300 are on Employer and Medicare, and 156 are on both Medicare and Medicaid. In the Historic East End, the annual health insurance expenditures was \$1,737, also spending \$913 on medical care. Of the population 65 years old and up, 11 were on Medicare only, and 7 were only on Employer and Medicare. Clearly, a lot has changed in the medical and insurance field since the Historic East End of West Chester Pennsylvania.



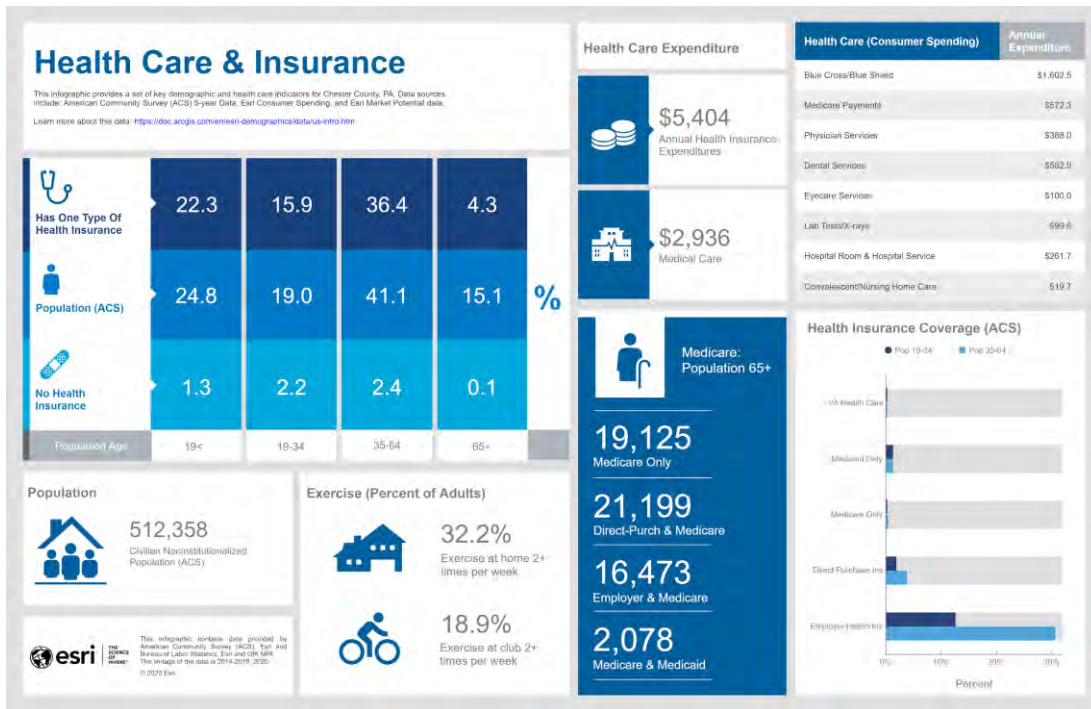
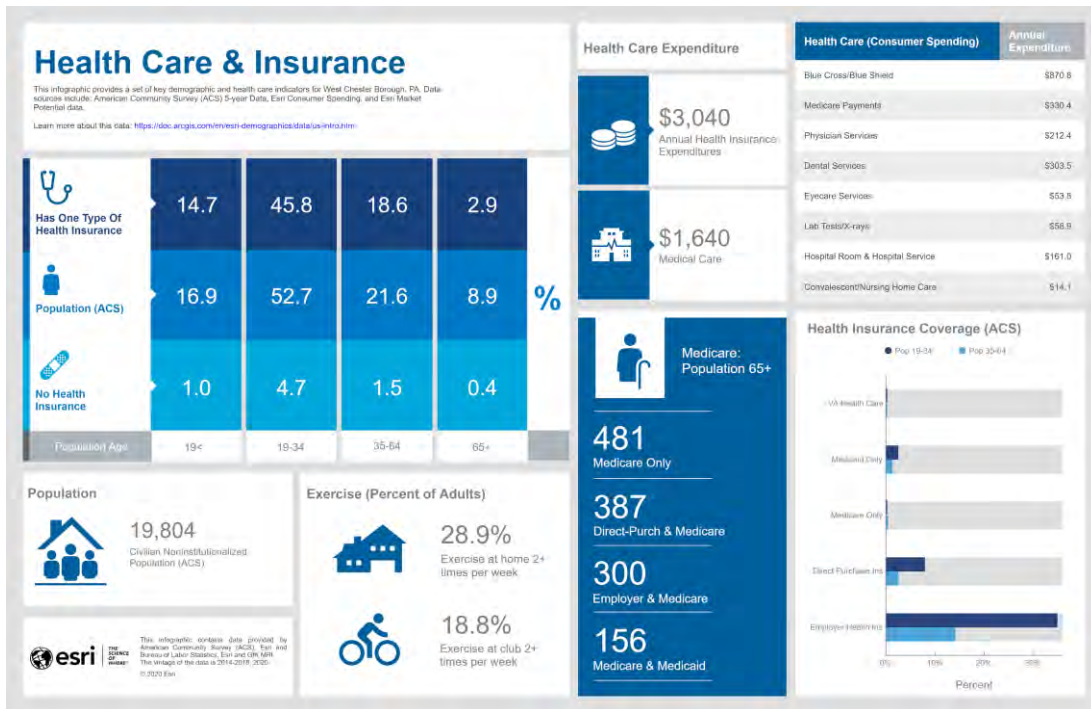


Figure 18 – Healthcare and Insurance: East End, West Chester Borough, and Chester County

Chapter 4: Natural and Environmental Characteristics

1. Impervious Coverage and Urban Forestry (by Abbey Cadden, PLN 505)

The impervious coverage map is valuable because it depicts a visual projection of the developed areas and the non-developed areas, or greenspace. From this map (Figure 19), the viewer can see that there is a considerable amount of impervious surfaces such as large buildings, homes, businesses, and parking lots. One can anticipate that stormwater runoff or flooding may be a more significant issue in areas with less greenspace. The center of the neighborhood is the Melton center and it contains the largest continuous area of greenspace in the entire East End neighborhood. Preserving the greenspace in the entire neighborhood will maintain current runoff levels, but if those areas were to be developed, the issues will worsen. This map was improved from the first version because I added a neighborhood boundary for context, changed the base layer to better illustrate the greenspace areas, and zoomed in on the map closer to the neighborhood. While the corners of the neighborhood were cut off, you are able to see more level of detail than by zooming out one more degree.



Figure 19 – East End Impervious Coverage I

I found a second layer titled “Urban Forestry” through the shared organization layers on Community Analyst. This map (Figure 20) pinpoints the trees in the East End neighborhood. Combined with the visual aid in the impervious coverage map, it can provide more information about natural resources that help reduce soil erosion and decrease run off.

East End WC Impervious Coverage

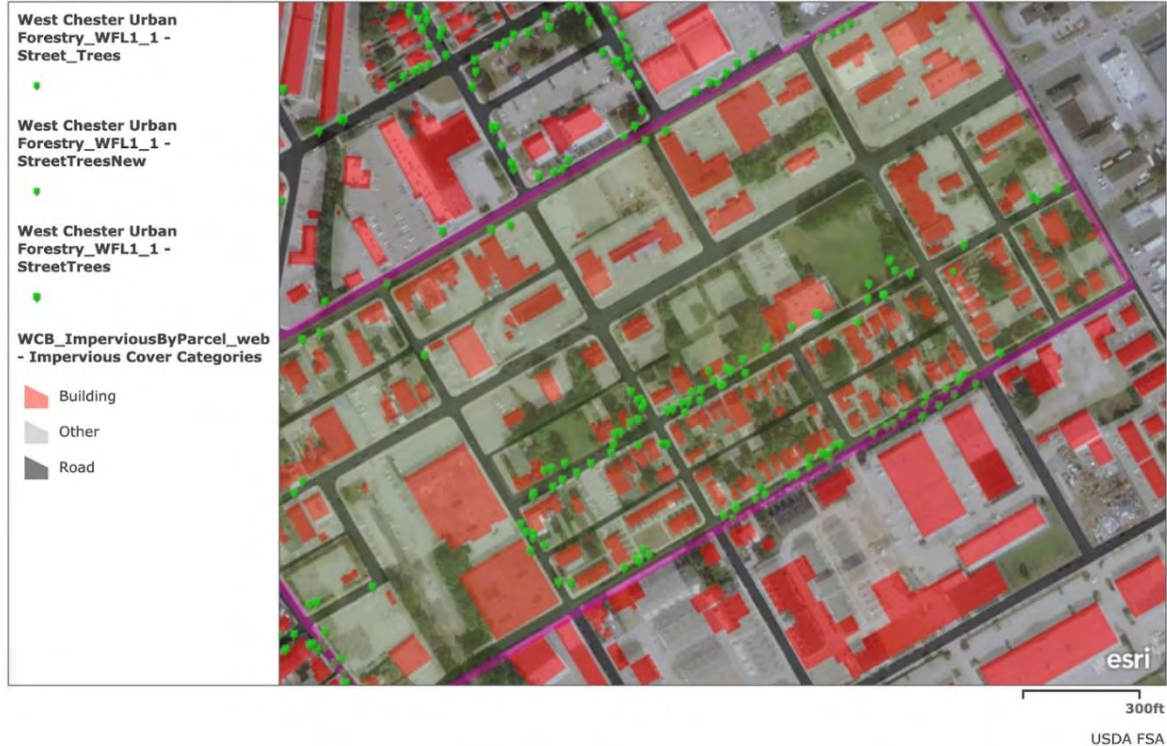


Figure 20 – East End Impervious Coverage II

“The East End is not as crowded as the center of the West Chester borough. There is more space between the buildings for water to be absorbed and some street trees. This may be the result of planners within the borough trying to address flooding and the urban heat island effect. Pin Oaks are among the best trees used to line the streets in Pennsylvania. It is known to not interfere with most concrete or hardscaping, is tolerant of urban stressors, and grows extremely quickly. The Pin Oak is also a native tree, which means that it will provide food and habitat to many more species than a non-native tree would. Street trees such as this provide shade to cool the hard surfaces of urban areas, clean and sequester rainwater to prevent water pollution and flooding, and catch air pollutants. These services provided by trees are even more crucial to underprivileged neighborhoods, who tend to have less money to cool their homes and who sometimes live in less desirable areas which may have increased air pollution.” – Patricia Quinn, PLN 505

2. Green Spaces (by Caitlin Pedersen, PLN 505)

This map (Figure 21) identifies the East End Neighborhood in West Chester Borough with a red border. The green polygons on the map are green spaces/parks. As you can see, there is one park in the boundary and it is in the Northwest corner of the neighborhood. This green space is named John O. Green Park and it is owned by the West Chester Borough. Located one block north of the neighborhood is another green space known as Fugett Park. Both parks are necessary greenspaces of the area and that help limit while also maintaining current stormwater runoff levels. Without these greenspaces impervious runoff levels would be higher.

4. Nearby Water Resources (by Jordan Engel, PLN 403)

The walking distance from the East End neighborhood to nearby water resources in the following increments: 5, 10, 15 minutes the focal point of the map. This information is extremely valuable if you are an individual who relies on well or other sources of natural water. More specifically for families living at or below the poverty line, that are forced to live off the natural resources of the land. This information can be valuable in the case of water shortages, or of any other valuable resources. Living near water can also mean flood plain and flooding risk. This information can be found in my teammates map “100-Year Floodplain”

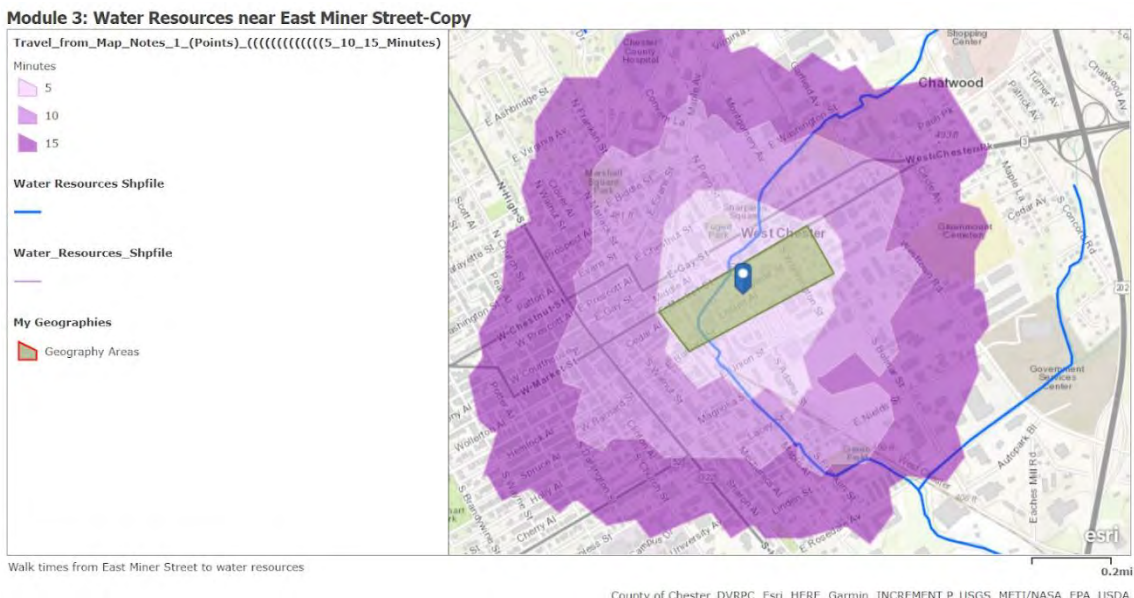


Figure 23 – Water Resources near East End

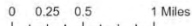
5. Historical Sites and Stormwater Infrastructure (by Julia Bonomo, PLN 505)

This map (Figure 24) displays West Chester’s East End Historical Sites and how they intersect with Chester county’s stormwater infrastructure. The Chester County GIS Hub shows that there is not much stormwater infrastructure in the West Chester Borough. My findings indicate that the closest type of stormwater infrastructure to the East End Boundary are two manholes on Gay Street. Each building serves a large historical purpose to the black community. Some of these buildings were places that helped people who were escaping the Underground Railroad, such as the Tent Sisters’ Hall. Other buildings had people who worked hard to improve life for the community, such as The Star Social Club.

East End Historical Sites and Stormwater Infrastructure West Chester, Pennsylvania



Pictured above is the East End Boundary of West Chester. The closest types of stormwater infrastructure are two manholes located in the upper right-hand corner.



Julia Bonomo
PLN 505
09/18/2020

- Manholes
- Storm Discharge
- Inlets
- Gravity Main
- Detention
- Historical Sites
- East End Boundary

Pictured to the right is an extended view beyond the East End boundary. More stormwater infrastructure can be seen throughout the borough.

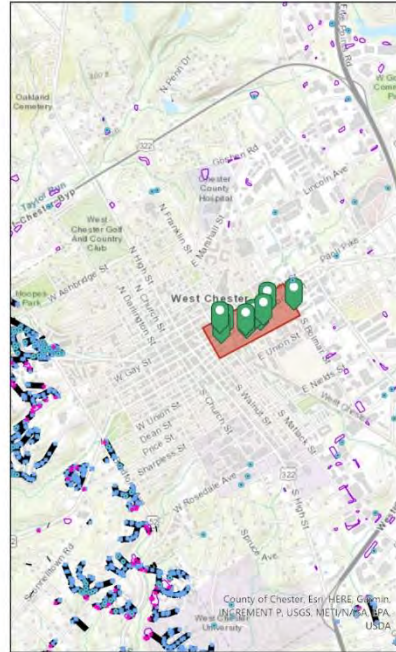


Figure 24 – East End Historical Sites and Stormwater Infrastructure

Chapter 5: Review of Existing Plans

This chapter reviews the existing plans and finds connections to and implications for the project site. The studio teams reviewed three different comprehensive plans that cover the project site, the historic East End neighborhood. These plans are Borough of West Chester Comprehensive Plan (local level plan), Chester County Comprehensive Plan (regional level plan), and DVRPC Long-Range Plan (mega-regional level plan). From this review, each team tried to find implications for the project site and wrote about them in the following structures:

- Team 1 (Local): [Borough of West Chester Comprehensive Plan \(2016\)](#)
 1. *Introduction of the Plan* (General description about the plan)
 - What is this plan about?
 - Why was this plan created?
 - When was this plan created?
 - Who did create this plan?
 - How was this plan created?
 2. *Plan's Implications for the East End Neighborhood* (i.e., How does this plan affect the neighborhood's present and future?) in areas such as:
 - Focus Area 1 Community & Economic Vitality
 - Focus Area 2 Environmental Sustainability
 - Focus Area 3 Preservation of the Historic Character
 - Focus Area 4 Future Enhancement Areas
 - Focus Area 5 West Chester University
 - Other Areas
 - Land Use & Housing Plan
 - Transportation & Circulation Plan
 - Community Facilities & Utilities Plan
 - Urban Center Revitalization Plan
 3. *Summary of the Review* (Summary of the two sections above)

- Team 2 (Regional): [Chester County Comprehensive Plan \(2018\)](#)
 1. *Introduction of the Plan* (General description about the plan)
 - What is this plan about?
 - Why was this plan created?
 - When was this plan created?
 - Who did create this plan?
 - How was this plan created?
 2. *Plan's Implications for the East End Neighborhood* (i.e., How does this plan affect the neighborhood's present and future?) in areas such as:
 - How We PRESERVE
 - How We PROTECT
 - How We APPRECIATE
 - How We LIVE
 - How We PROSPER
 - How We CONNECT
 3. *Summary of the Review* (Summary of the two sections above)

- Team 3 (Mega-Regional): [DVRPC Long-Range Plan \(2017\)](#)
 1. *Introduction of the Plan* (General description about the plan)
 - What is this plan about?
 - Why was this plan created?
 - When was this plan created?
 - Who did create this plan?
 - How was this plan created?
 2. *Plan's Implications for the East End Neighborhood* (i.e., How does this plan affect the neighborhood's present and future?) in areas such as:
 - Principle SUSTAIN THE ENVIRONMENT
 - Principle DEVELOP LIVABLE COMMUNITIES
 - Principle EXPAND THE ECONOMY
 - Principle ADVANCE EQUITY AND FOSTER DIVERSITY
 - Principle CREATE AN INTEGRATED, MULTIMODAL TRANSPORTATION NETWORK
 3. *Summary of the Findings* (Summary of the two sections above)

1. Review of the West Chester Comprehensive Plan

1. Introduction of the Plan (by Hadjer Ahner, PLN 505)

The Borough of West Chester comprehensive plan is a detailed document, prepared by the task force that was selected by the Borough Council in 2014. After a long in-depth process, it was finalized in 2016. The plan was forged with the assistance of professionals, public officials, diverse interest groups, stakeholders, and input from several Town Hall and public meetings. Initially, the plan was created as an “issue-based plan” to address existing problems in areas that needed immediate attention. However, it was adopted as a manual to move the borough forward into the future and accomplish five main goals, outlined in the document under Community and Economic Vitality, Environmental Sustainability, Preservation of Historic Character, Future enhancement, and West Chester University. The plan inspires West Chester to preserve the appeal and historic charm of the borough, all while serving the demands of all businesses and current and future residents, in terms of infrastructure, land use and zoning, public facilities, and services. Although the plan is not used as a regulation, it provides the groundwork for the borough to formulate strategies, recommendations, standards, and policies to oversee all potential developments and alterations in the borough (Borough of West Chester Comprehensive Plan & Urban Center Revitalization Plan 2016).

2. Plan's Implications for East End

Focus Area 1: Community & Economic Vitality (by Ryan Cavanaugh, PLN 403)

West Chester Borough prioritizes improving the community and vitalizing the local economy. The borough economy thrives off its restaurants, and retail stores, and it capitalizes off of everything being in close proximity of each other. Having such a historic community with everything being in walking distance is something that West Chester Borough prides itself in, so it is no surprise that when planning for future development it is important for the borough to preserve these aspects of the community,

while also maintaining livability, a diverse population, and a safe environment. The community stays involved during the planning process to ensure that these values are upheld while implementing new features to the community in a creative way.

Focus Area 2: Environmental Sustainability (by Cameron Pursel, PLN 403)

West Chester Borough has two main goals in making environmental sustainability a cornerstone of its comprehensive plan. The first part of this plan is enacting a set of standards and initiatives to protect, enhance, and restore ecosystems within the township, in doing so effectively setting the stage for future wildlife population growth in a township that has been developed extensively away from a place that is resoundingly welcome for animals and into a much more suburban style setting. Expansion of green spaces and restoration of areas for animals to live ties into the environmental sustainability section of the plan extensively. The second part of this plan involves introducing ideas and policies aimed at reducing energy use and greenhouse gas emissions, no doubt a goal brought about due to revelations about the effect of carbon dioxide on our atmosphere during the plans publication in 2016. With this, the borough cites the worldwide scientific communities need to reduce fuel consumption in an effort to stave off the worst effects of climate change which will no doubt adversely affect West Chester borough, and specifically the east end neighborhood in the borough. The goal of creating more green spaces will positively impact the east end neighborhood, as it will create more places for people to relax and have a higher quality of life, all the while helping mitigate the most serious effects of climate change which will affect the poorer residents of the east end more than elsewhere in town.

Focus Area 3: Historic Preservation (by Mahmood Sheikh, PLN 505)

The borough's strategies for historic preservation focus on sensitive building rehabilitation suitable adaptable reuse of older buildings, oversight of design and appropriate new development and most importantly to maintaining its walkable, small town character. To that end, the borough's historic preservation plan focuses on two areas. The first area is the downtown Certified Local Historic District (CLHD). The CLHD has regulations and regulatory bodies, like the historic district ordinance and the Historical and Architectural Review Board (HARB) to protect its historic sites and ensure that all new development and redevelopment complements and contributes to the existing neighborhood. The borough's historic preservation plan also has a list of recommendations for this district, such as discouraging new single-purpose, auto-oriented uses and fast-food retail services with drive-thrus within the Market/Gay East corridor, expanding the existing certified local historic district and ensuring that all new redevelopment in the Downtown is consistent with the scale and historic character of the downtown and adjacent properties. The other area of historic preservation is the historic resources borough wide including the West Chester State College Quadrangle Historic District, the Boundary Increase Historic District and the historic sites that can be found within West Chester's East End neighborhoods. Unlike the CLHD, there are no regulations preventing the demolition of historic buildings outside the downtown area. Even if a building is on the national historic register, it still isn't protected from destruction from a private property owner. This lack of regulatory protection could have profound effects on historic character of the rest of the borough, especially the East End, which has built up its own unique cultural identity. In order to protect these historic sites these, including the sites located in the East End, recommendations like the creation of a historical commission and supporting ordinance regulations to protect individual historic properties outside the CLHD, the creation of a heritage conservation district that requires at property owners receive Borough Council approval prior to any

partial or complete demolition or removal of architectural features visible from the street and incentive programs such as a revolving loan fund, would need to be implemented.

Focus Area 4: Future Enhancement Areas (by John Newman, PLN 403)

West Chester's comprehensive plan has a total of four areas of potential growth. When discussing the types of growth, it is considered to be large scale development. The comprehensive plans goal is to provide the least amount of impacts on the natural environment and other aspects. While also considering the potential good benefits, such as, social and economic. The four areas the borough are looking at consist of, Market/Gay corridor, Hannum Avenue corridor, Pfizer/ Wyeth Property and finally the West Chester Gold club. Looking at the Market/Gay corridor the borough plans to totally revamp this area. Creating a much more enjoyable appearance. This corridor is an entry point for the borough. The borough plans to utilize mixed use planning. Pfizer/Wyeth is the largest parcel of land within the borough, 31 Acres to be exact. Plan to do a mix of commercial, residential and recreational use that generates a tax base. The borough wants to use bicycle and pedestrian use. The golf Course/Country club is preexisting but needs to consider developing with the natural features and preservation of the town in mind. Any future development should utilize residential and recreational uses in the preexisting historic neighborhoods.

Focus Area 5: West Chester University (by Matthew Gorman, PLN 403)

West Chester University occupies a significant area of the Borough and creates unique planning opportunities and challenges. The University generates economic, social and cultural advantages while also serving as nuisance with traffic, parking, housing demand, and noise spillover. Over the past 12 years West Chester University has seen a drastic increase in enrollment but has had a decrease in on-campus enrollment. This new trend has therefore caused dilemma with traffic and parking and negative neighborhood impacts from inappropriate student behavior. The University looks to implement shuttle services, develop joint parking management, and revise parking requirements in the zoning ordinance to decrease traffic issues. A comprehensive strategy should include efforts to accommodate as many students as possible in campus housing, encourage faculty and staff to move into neighborhoods, and proactively address inappropriate student behavior in off-campus locations. West Chester University is located within three municipalities, including West Chester Borough, West Goshen Township and East Bradford Township. Planning for future change on the University campus would be better facilitated with a common set of regulations across the three municipalities. A campus overlay district should be explored to provide a uniform set of regulations.

Other Areas (by Aidan Henken, PLN 403 and Patricia Quinn, PLN 505)

- *Land Use & Housing Plan:* The Land Use and Housing Plan addressed in West Chester Borough's 2016 comprehensive plan will affect the East End neighborhood by adding improved pedestrian access from south of the neighborhood. This is a good improvement as there are some missing sidewalk connections in this area. Bringing foot traffic through the neighborhood and making it easier to walk around the borough is an advantage to those who do not own a car. The plan also aims to encourage homeownership to stabilize neighborhoods. That is especially important for the East End in preserving the history and assets within the neighborhood.

- *Transportation & Circulation Plan:* Two existing bus stops within the East End neighborhood have no shelter. This plan aims to provide shelter to both so that residents do not have to wait in the rain, snow or hot sun for the bus to arrive. One stated goal of this plan is to “Enhance the corridors east and west of downtown to make them more bike and pedestrian friendly”. For the lower income residents of the East End, this will make it safer to travel without a car. Even though there seems to be no explicit plan to complete the connectivity of sidewalks in the East End, the current plan aims to connect the sidewalks on busy streets. This is a safety priority and it makes sense to aid this problem first.
- *Community Facilities & Utility Plan:* The Borough of West Chester has and will always commit themselves to high quality municipal facilities, services and utilities in cost effective ways. These categories include but are not limited to police and fire protection, recreation programs, stormwater management, sanitary sewers, and solid waste management. Because of population rising within and around the borough, some of these services, facilities, and even utilities are overwhelmed. An example is the West Chester Police staff growing in size to be able to monitor and patrol effectively. The parks and natural spaces in the Borough serve as recreational and gathering spaces while also promoting sustainability. Lastly, West Chester operates two wastewater treatment plants, in which the main source of water supply for the West Chester area is from the Brandywine Creek in East Bradford.
- *Urban Center Revitalization Plan:* Originally funded by Chester County in 2003, the Urban Center Revitalization Plan was prepared to focus on four key areas; economic development, housing, infrastructure, and transportation improvements. This plan should serve all parties involved as a guide on how to implement different types of recommendations of this plan. Another key aspect of this plan is to ensure funding for future initiatives and capital improvements. The action plan involved within the revitalization plan incorporates action from each of the five Focus Areas and supplemental plans that relate to Economic, infrastructure, circulation and housing and public safety. The Borough sees a successful downtown as one of West Chester’s most important assets. In order to maximize its assets, the borough believes that any future revitalization actions should build upon the Boroughs strengths. Maintaining an attractive setting that emphasizes its historic character as well as maintaining a mix of uses. By managing, maintaining, providing, and linking different entities, the Borough will continue to execute this plan in hopes of improving the town center.

3. Summary of the Review (by Cameron Pursel, PLN 403)

The West Chester Borough comprehensive plan encompasses a wide range of topics and answers many questions interested citizens may have about how West Chester will look through the coming years and decades. Standards are in place for a variety of topics developers and neighbors may be interested in. Steering development of the local economy and harnessing economic growth in a positive way is one of the first examples of how the borough hopes this plan will be used, as evidenced through its rank via the focus areas of the plan. The plan does not focus a lot specifically on the east end neighborhood, however a lot of the plans effects will affect the east end neighborhood positively through tangential and unknowable at this time positive outcomes. For instance, the plans environmental section lays out a

vision for how the environmental wellbeing of the area can be maintained and improved. The plans details on preservation of historical character lend credence to the vast historical significance of many buildings and areas of town, and in so establishing ways to maintain the historic charm of the town the plan effectively conveys its strong ties to West Chester Boroughs rich history. Defined future enhancement areas act effectively as a useful tool for developers to focus their time on certain areas which will be best suited for the boroughs character at large. Singling out West Chester University as a unique challenge is an important aspect of the plan, as realizing that planning in West Chester Borough will be heavily impacted by the university's location, a constantly shifting student population, and demanding transportation challenges in the borough and region among other factors absolutely requires special attention in a plan of this scale. The Borough of West Chester comprehensive plan is an adequately detailed document that will effectively shape the future of the Borough.

2. Review of the Chester County Comprehensive Plan

1. Introduction of the Plan (by Dan Rafalovitch, PLN 505)

The Chester County Planning Commission, as of November 2018, created an updated comprehensive plan that would serve for establishing preservation/growth, guide county government decision-making, guide local municipal planning/implementation, and provide a framework for collaboration among municipal boundaries. Landscapes (1996) and Landscapes2 (2008) are comprehensive plans that have been established in Chester County for the last 20 years. Landscapes3 will embrace its original strategy of balancing growth and preservation will adding a unique holistic approach that will incorporate “smart growth principles”. Landscapes3 aims to meet the needs of today without compromising the needs of future generations while promoting programs that build community and environmental resiliency. Programs such as resource preservation, revitalized centers, housing diversity, transportation choices, collaboration, and resiliency are just a few programs that remain a central theme of Landscapes3. In order to create such a plan, the development of Landscapes3 needs to understand the issues, construct a vision, and implement this vision to fully prepare for this multi-year process. In order to understand the feedback from counties, municipalities, stakeholders, and the public we need to build a foundation of the general themes of a comprehensive plan. Chester County has strong high-tech/financial industries, distinctive cultural institution, attractive residential communities, and a robust agricultural industry, countryside, and dense villages/towns which remain as the core county structure. These themes and structures give Chester County a high quality of place for its residents. How we as a county protect, appreciate, live, prosper, and connect is all how we as a community can implement Landscapes3.

2. Plan's Implications for East End

How We PRESERVE (by Rich Alimonti, PLN 403)

Chester County's Comprehensive Plan's preserve chapter provides a variety of recommendations deemed necessary to help meet the East End Neighborhoods preserve goal and objectives. The comprehensive plan lays out nine preserve objectives that would help maintain West Chester's East End

neighborhood. The first objective would be to expand open space education because we must ensure that the public and municipal officials are aware of the different types of protected open space which include farms, parks, and preserves. The second objective is increasing protected farmlands by taking advantage of opportunities to expand existing protected farmland clusters and create links between existing protected farmlands. The third objective is to expand protection of natural habitats because protecting natural areas helps ensure that the critical functions these areas provide will not diminish due to development. The fourth objective would be to create additional recreation properties because of the anticipated population growth in Chester County. The fifth objective is enhancing protection of cultural resources because they provide Chester County with its sense of place. The sixth objective would be to expand the network of protected open space by taking advantage of opportunities to establish links in a countywide network. The seventh objective would be to encourage restoration and stewardship because if open space land is not properly managed and improved, it may cause water quality problems and other issues. The eighth objective is supporting open space policies and ordinances because ordinance regulations provide another tool for municipalities to preserve open space and the farmland, natural habitat, and scenic and historic features on that land. Finally, the ninth objective would be to convene open space summits for the purpose of information sharing to facilitate regional efforts. I believe the seventh objective is the most important because encouraging restoration and stewardship would prevent water quality problems and other issues that the East End Neighborhood of West Chester does not need. The seventh objective is also important because the East End is filled with historic landmarks that give it its sense of place, and they should be protected and maintained at all costs.

How We PROTECT (by Wesley Hicks, PLN 403)

Chapter 5 focuses on protecting the natural landscape of the county. The plan connects the natural landscape with the county's quality of life. The county is implementing programs to reduce stormwater runoff. There are eight objectives namely promoting natural resource protection, provide natural resource policy, enhancing water resource planning, monitoring impacts on water resources, promoting innovation to improve water quality, enhancing flood resiliency and supporting municipal sewage systems. For the East End neighborhood, most of the objectives can improve the overall water quality for the East End residents. The plan also aims to reduce the impact of storm water runoff. An example of stormwater management the plan provides is vegetated curb bump-outs. The call for improved flood resiliency in the county can greatly reduce the flooding in the East End.

How We LIVE (by Alex Sankaran, PLN 403)

The How We Live section of the Chester County Comprehensive Plan accounts for all housing and livability needs within the County, with an overarching goal to "nurture diverse and well-rounded communities with a balance of residential opportunities and convenient access to community facilities, services, and amenities." The plan includes six major objectives, namely diverse housing, cost accessibility, safe places for all citizens, maintenance and support, fostering healthy living, and access to quality education. It also includes thirteen recommendations to help achieve those six major objectives. The chapter provides thorough explanations regarding the implementation and achievement of the goals. Also included are many photographs to help tell the story and give the reader a better understanding of the material. With regards to the East End neighborhood, many of the policies from the plan can be implemented on this more targeted, smaller scale. One of the recommendations focuses on promoting increased access to fresh, healthy, and local food. This would be a huge improvement for

the East End neighborhood, particularly if prices were reasonable. This also ties into health problems, as many lower-income areas that lack proper access to healthy foods tend to have higher obesity rates and other health complications. Another aspect looks to promote impactful public health policy and services, which is especially prudent given the current crisis surrounding the COVID-19 pandemic, particularly with how it pertains to and affects lower-income neighborhoods. Overall, the Chester County Comprehensive Plan How We Live section provides many steps that will help both the county and the East End neighborhood in West Chester.

How We PROSPER (Evan Gardi, PLN 403)

The Prosper chapter of Chester County's Comprehensive Plan has a lot of potential to positively affect the East End neighborhood of West Chester. The 1st point is to expand workforce development by partnering with educators to enhance and create curricula to address industry concerns on worker's skill levels. The 2nd point is to create a redevelopment program for existing structures by adding green infrastructure and site buffering; and because the locations are existing, the public transportation, public water, and public sewer infrastructure can be utilized. The 3rd point would be to support flexible zoning. The 4th point has to deal with retaining and expanding existing businesses, for example the ones we took pictures of. This point can go along with the 5th, 6th, and 7th, plans as well. The 8th point of the plan has to deal with revitalizing urban centers. The East End neighborhood is very close to the center of West Chester so a revitalization movement would almost definitely affect the East End neighborhood. The 9th and 10th points couldn't really be applied to the neighborhood as easy because they have to deal with suburban areas and agricultural areas. Most of the points in the prosper section have fantastic ideas that could easily be applied to the East End neighborhood.

3. Review of the DVRPC Long-Range Plan

1. Introduction of the Plan (by Emily Reilly, PLN 403)

The DVRCP's Long Range plan, created on October 26, 2017, outlines planning for the future in a number of ways. This plan was developed by DVRCP's working committees, regional planning partners, stakeholder groups, as well as residents. How this plan was created is by analyzing current trends and future forecasts while reaching out to stakeholders and residents. It considers transportation, land use, the environment, economic competitiveness, equity, and quality of life issues for the community. This plan has five core goals, to sustain the environment, develop liveable communities, expand the economy, advance equity and foster diversity, and to create an integrated, multimodal transportation network. It was created to prepare the region for a forecasted increase of more than 658,000 more residents and over 372,000 more jobs by 2045. With so much projected growth a region needs plenty of time to prepare.

2. Plan's Implications for East End

Principle SUSTAIN THE ENVIRONMENT (by Julia Bonomo, PLN 505)

Sustaining the environment will greatly help the East End neighborhood. This plan prevents expansion of suburban development into rural communities. This means that there would not be any more

development in the neighborhood that drives lower-income residents out. This plan also promises to “protect the context and integrity of historic sites and cultural landscapes that make the Greater Philadelphia region unique.” The East End neighborhood is filled with largely historical sites; this plan ensures to preserve these features. The DVRPC swears to identify the historic sites, buildings, etc. that contribute to community identity. This may help the West Chester Borough take better care of the East End and its residents. The Charles A. Melton center will be in good shape with this plan because the plan provides an exceptional source of outdoor recreation opportunities. This will help many people in the East End neighborhood, especially the children. Farming and food being incorporated into economic development will be sustainable and beneficial for this neighborhood. The DVRPC advocates to enhance coordination between all food system stakeholders. This includes hunger relief programs and local farmers markets. This will be helpful for the low-income community now and for generations to come in saving money and eating right.

Principle DEVELOP LIVABLE COMMUNITIES (by Caitlin Pedersen, PLN 505)

The DVRPC Long Range Plan predicts a growth in employment and a growth in housing in this area of southeastern Pennsylvania. The DVRPC advocates for creating and developing livable communities. “Livable communities are supported by investing in and redeveloping Centers, enhancing community design, promoting affordable housing in appropriate locations, increasing parks and recreation opportunities, and creating and maintaining community-centered schools” (p.58, *Connections 2045*). These communities strengthen local economies by preserving unique areas that have architectural character while being able to conserve open space to endorse recreational opportunities. The DVRPC has identified West Chester as a Town Center. Town Centers are areas that have high-density residential and commercial uses that highlight the unique history of the area while also creating a sense of place. West Chester has the thriving downtown and main street (Gay & Market) that highlight the pedestrian friendly atmosphere that traditional suburban residential areas lack. Within the Town Center of West Chester there is what DVRPC identifies as a Neighborhood Center. These areas have a different identity than the surrounding area. In West Chester, this area is the East End Neighborhood identified for its unique history and strong sense of community separate from the culture of West Chester.

Principle EXPAND THE ECONOMY (by Abbey Cadden, PLN 505)

According to the DVRPC’s *Connections 2045*, Philadelphia’s regional economy yields nearly \$400 billion annually in gross domestic product. This success and stable growth is attributed to the diverse business sectors keeping the region insulated from extreme economic highs and lows. The southeast quadrant of West Chester Borough contributes to the region’s resiliency because it hosts an array of businesses including car dealerships, medical offices, manufacturing facilities, a recycling center, retail clothing shops, a senior center, and public facilities such as the Chester County Government Services center and the Milton Center. This is important for the East End neighborhood, which is located in the southeast quadrant, because it provides economic stability and job opportunities for a diverse workforce who may have varying levels of education, skills, and training. *Connections 2045* also notes that the region’s successful transition into the digital age was achieved by developing necessary infrastructure (i.e., highways, bridges, broadband internet, public transit, ports, etc.) to support the dynamic business environment. Looking forward, the East End neighborhood would benefit by investing in public transit by reinstating the West Chester SEPTA train line because it would provide an additional method for not

only attracting business and dollars that would otherwise be spent elsewhere, but also enhance the ability for low-income residents to travel throughout the region for work.

Principle ADVANCE EQUITY AND FOSTER DIVERSITY (by Maeve Dowd, PLN 403)

The DVRPC Comprehensive Plans section discussing equity and diversity mainly focused on creating initiatives that would allow for a better quality of life for any person within the Delaware Valley Region. Their initiatives mainly focused on upholding the idea of Environmental Justice, and integrating that principal into different aspects of the community. The plan specifically touches on wanting to promote equitable access to transportation, creating age-friendly communities, allowing all children access to good schools, and building inclusive communities without displacement. The DVRPC Comprehensive Plan even shows a data analysis of the areas within the region that are experiencing high rates of poverty, low English proficiency and physical disability. The highest population can be seen within Philadelphia and surrounding the city. While the East End might not be specifically outlined as an area experiencing these specific issues, the goals outlined to advance equity and foster diversity can be influential to the area's prosperity. Specifically, by creating more access to transportation the East End could become more connected to downtown West Chester. This increased access in transportation would allow for the population within the East End to have more access to jobs downtown as well as jobs or education within the university.

Principle CREATE AN INTEGRATED, MULTIMODAL TRANSPORTATION NETWORK (by Jordan Engel, PLN 403)

The principles stated in the DVRPC's "Create an Integrated, Multimodal Transportation Network" section are reflective of their core philosophies. These key values consist of: supporting the policies and goals stated in their long-term plan, going beyond the federally required minimum "3c" process, maintain and preserve existing transportation infrastructure, financial benefits shall be strategically distributed across the region, and lastly supporting innovative technologies to help push the master plan. Information on the DVRPC's planning philosophies was found from (p.95, Connections 2045). There are many anticipated benefits to this transportation plan. Providing a safer and more sustainable transportation network that allows for more options in getting around is the focal point. Increasing the use of real time data will allow for more efficient movement of all sectors. Reducing automobile dependence will decrease co2 emissions and traffic congestion. Preserving open space as well as natural resources, by not needing to construct further highways and roads. Creating new jobs with a high performing transportation network within the Northeast and Mid-Atlantic megaregions. Reducing parking demand and increasing the connectivity of different transportation options. The last agenda in the plan is the hope of increasing citizen engagement. Information on the goals and benefits stated can be found from (p.96, Connections 2045).

1. Team A's Initial Ideas

The community garden will feature native plants, trees, shrubs, a small orchard, vegetable garden, butterfly garden with a sitting bench, a water feature in the corner, and a bench table. Also, the garden will include a storage shed made with recycled materials, with solar panels on the roof to use as a source of renewable energy, a compost bin, 6 rain barrels, and a boxed herb garden.

- ✚ Create garden sections that serve the diverse benefits and interests of the community
- ✚ Plant native trees
 - Clean air
 - Support biodiversity
 - Help with stormwater management
 - Possibly plant fruit trees (small orchard)
 - Possibly create revenue (yielded produce) and jobs (ground keeping, garden management)
 - Creates shade and reduces surface and air temperature.
- ✚ Solar street/garden lamps
- ✚ Compost bin for the community to use and use the byproduct as a natural fertilizer
- ✚ Rain Barrels to collect rainwater and reduce runoff

This garden model was sketched using a [Small Blue Print web application](#).

The proposed garden touches on the proposed Green New Deal with the following:

- ✚ "Access to healthy foods"
- ✚ "Renewable, and zero-emission energy sources"
- ✚ "Clean air"
- ✚ "Biodiversity"
- ✚ "Access to nature"
- ✚ "Jobs"

2. Team B's Initial Ideas

Economic Sustainability (by John Newman, PLN 403 and Mahmood Sheikh, PLN 505)

A community garden could provide a community with many benefits both environmental and economical. Diving deeper into the economical aspect in relation to the Green New Deal there are many ways how a garden could benefit a community economically. Looking at our assigned location of Bethel AME church we are presented with the building and a wide open paved parking lot. If we were to place a community garden in this area we would directly see an increase in economic opportunity and a potentially greener future, such as:

- ✚ Increase in jobs
- ✚ Potential volunteering opportunity
- ✚ Local farmers market

Looking at the job aspect the community garden could provide both an occupation for the care of the plants, harvesting the produce and finally the upkeep of the grounds. This could entail mowing, weeding and various other work. The salaries for these jobs can vary, ranging from a low of \$29,000 to a high of \$64,000. The volunteer aspect is another important part to a healthy future economy, providing insight and education on natural living for a green future. Providing students in the area an opportunity to get hands on with this type of thing, even the potential internships for the university. It could also provide employment opportunities for immigrants, the differently abled, the formerly incarcerated and returning veterans. Community gardens can also increase property values. A study done on community gardens in New York City found that gardens had a statistically significant positive impact on residential property within 1000 feet of the garden, particularly in low income areas. This can lead to capital investment and other improvements. A cost-benefit analysis also suggests that the gain in tax revenue generated by community gardens within 1,000 feet of residential property may be substantial. Lastly, the food produced by community gardens can be much cheaper than foods sold in grocery stores. In Lincoln, Nebraska, research comparing the price of vegetables in garden plots to those in grocery stores found that the plots saved an average of \$497. This would, in addition to making healthier more accessible, also help to fight income inequality by allowing low income consumers to save more money. A local farmers market would be a perfect addition to the West Chester borough. Stimulating the local economy while also encouraging people to eat fresh and local in their hometown.

Environmental Sustainability (by Julia Bonomo, PLN 505 and Aidan Henken, PLN 403)

One of the main goals of The Green New Deal is to have net-zero emissions by 2050. For our site location, Bethel AME Church, we strived to find alternative solutions to items that produce emissions. One of our best solutions was implementing solar power into the community garden. The solar power panels can be placed on top of high structures, such as the gazebo or pavilion, to avoid taking up extra space. The solar power panels will enable people of the community garden to use an electric grill, play band instruments, charge their phone, etc.

To be environmentally sustainable means our food has to be environmentally sustainable. Our local farmer's markets will all have locally grown food, food from the community garden, bake sales, etc. Getting locally grown food is better for the environment because the process of getting this food is quicker than getting it at a grocery store. Meaning that many more emissions are produced to ship food to grocery stores and buying it locally reduces that amount of emissions. We can have customers of the farmer's markets be required to bring their own reusable bag to prevent using single-use plastics. On opening day, we can hand out custom made reusable bags to everyone.

Since the East End Neighborhood is surrounded by industrial and commercial sites (27 total business sites), this community garden can offer a beautiful leisure as well as recreational area for the citizens to enjoy. The garden will serve as a sign of sustainability as well as provide benefits to the surrounding ecosystem if managed properly. This singular community garden will not change the world but hopefully it would start a domino effect in the surrounding communities. Surrounding the Borough of West Chester as well as within, there are plenty of vacant lots that would be suitable for a community garden. Also, when looking at food sources within walking distance of the East End Neighborhood it is very limited. Fast food options as well as other non-sustainable food sources dominate the area which in turn adds to underlying health issues as well as weight issues.

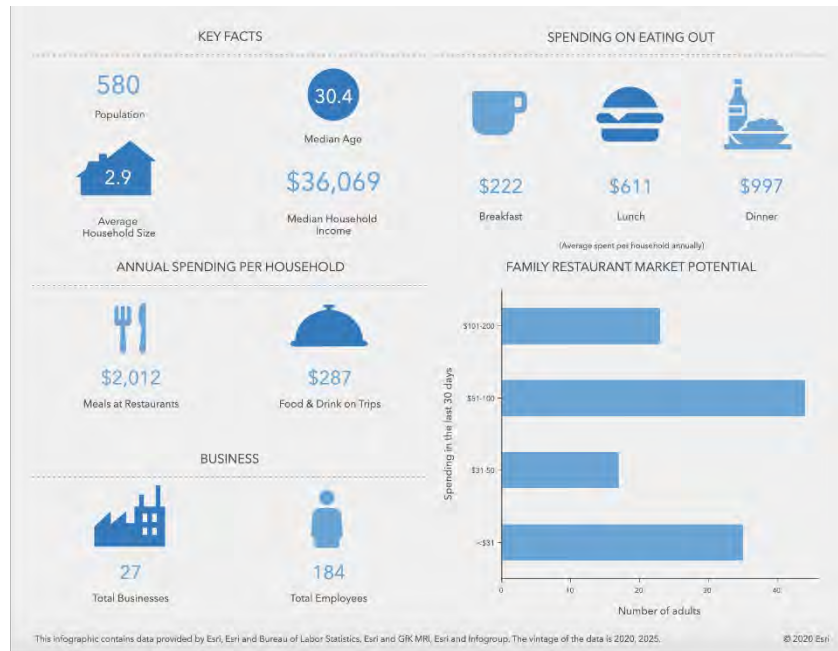


Figure 26 – Food Options near East End

“By building resiliency against climate change-related disasters and remediating or repurposing hazardous waste and abandoned sites among many others (The U.S. Congress, 2019).”

There is also an abandoned waste site that has been unused for many years. A purpose that the abstract states is to repurpose hazardous as well as abandoned sites. I am unsure of the exacts, as well as the timeline for the availability of this lot, but this lot is extremely close in proximity to our site in the East End neighborhood as well as a sizable lot that could feature different types of sustainable green technology if us or the borough decided to take this one step further.

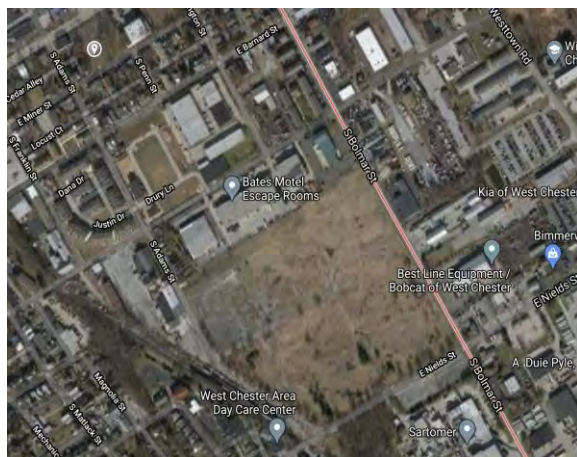


Photo 9 – The Pfizer/Wyeth land in West Chester

I added these infographics because the aspect of a community garden within the Green New Deal guidelines also touches on health and activity. As you can see from the reports, the neighborhood is an active area. Many adult citizens exercise multiple times a week whether that is at home, in a gym, or outside. Many citizens in the neighborhood maintain a healthy diet with about 11.7% of the adult community considers themselves semi-vegetarian. Also, about a fifth of the adult community buy specifically natural and organic foods. On the flip side, many adult citizens of the community suffer from mental health as well as their physical health. Diabetes is found in about 7% of the adult community

as well as high blood pressure at 6.7%. Depression as well as anxiety and panic attacks are also very high in this area. Keeping that in mind, healthy low-calorie foods which are available in these communities’

gardens will benefit physical health as well as hopefully the aesthetics of the park helping some cope with their mental illness.

Table 2 – Health and Activities in East End

Product/Consumer Behavior	Expected Number of Adults/HHs	Percent	MPI
Typically spend 7+ hours exercising per week	68	17.0%	87
Typically spend 4-6 hours exercising per week	81	20.2%	106
Typically spend 1-3 hours exercising per week	86	21.4%	90
Exercise at home 2+ times per week	104	25.9%	95
Exercise at club 2+ times per week	43	10.7%	76
Exercise at other facility 2+ times/wk	26	6.5%	80
Own elliptical	7	1.7%	42
Own stationary bicycle	9	2.2%	44
Own treadmill	10	2.5%	30
Own weight lifting equipment	28	7.0%	61
Control diet for blood sugar level	37	9.2%	80
Control diet for cholesterol level	42	10.5%	94
Control diet for food allergies	9	2.2%	106
Control diet to maintain weight	25	6.2%	66
Control diet for physical fitness	26	6.5%	62
Control diet for salt restriction	16	4.0%	102
Control diet for weight loss	42	10.5%	65
Used doctor's care/diet for diet method	8	2.0%	78
Used exercise program for diet method	16	4.0%	45
Buy foods specifically labeled as fat-free	35	8.7%	97
Buy foods specifically labeled as gluten-free	32	8.0%	131
Buy foods specifically labeled as high fiber	24	6.0%	82
Buy foods specifically labeled as high protein	23	5.7%	64
Buy foods specifically labeled as hormone-free	13	3.2%	86
Buy foods specifically labeled as lactose-free	18	4.5%	114
Buy foods specifically labeled as low-calorie	38	9.5%	142
Buy foods specifically labeled as low-carb	15	3.7%	47
Buy foods specifically labeled as low-cholesterol	35	8.7%	165
Buy foods specifically labeled as low-fat	29	7.2%	87
Buy foods specifically labeled as low-sodium	48	12.0%	109
Buy foods specifically labeled as natural/organic	71	17.7%	117
Buy foods specifically labeled as probiotic	14	3.5%	75
Buy foods specifically labeled as sugar-free	47	11.7%	116
Consider self to be semi-vegetarian	47	11.7%	146
Used meal/dietary/weight loss supplement last 6 months	30	7.5%	84
Used vitamins/dietary supplements in last 6 months	162	40.4%	75
Used prescription drug for anxiety/panic	36	9.0%	153
Used prescription drug for arthritis/osteoarthritis	7	1.7%	55
Used prescription drug for rheumatoid arthritis	7	1.7%	67
Used prescription drug for asthma	18	4.5%	114
Used prescription drug for backache/back pain	27	6.7%	101
Used prescription drug for depression	29	7.2%	117
Used prescription drug for diabetes (insulin dependent Type-1)	10	2.5%	110
Used prescription drug for diabetes (non-insulin dependent Type-2)	17	4.2%	94
Used prescription drug for heartburn/acid reflux	21	5.2%	95
Used prescription drug for high blood pressure	27	6.7%	51
Used prescription drug for high cholesterol	19	4.7%	59

3. Team C's Initial Ideas

Climate (by Emily Reilly, PLN 403)

The Green New Deal aims to protect the environment from the effects of Global Climate Change. The Green New Deal proposes many high and low-tech solutions some of which are applicable in our own community gardens. The changes we provide certainly won't fix the problem of climate change all together, but adding these few low-tech solutions will be a start and could inspire more communities to do the same. The first climate solution for our community gardens reflects problems of polluted water

runoff. Gardens absorb rainwater which reduces the amount of runoff collecting in the streets carrying pollutants. Having a few garden boxes in our land will collect this rain water and protect our streets and water systems from runoff and pollution. In addition, another main goal of the new green deal is to reduce greenhouse gas emissions. Our plants will take in carbon dioxide and release oxygen back into the environment. Although it's only a small space it can still help reduce the carbon footprint. If our garden produces fruits and vegetables that can be picked by the East End community, that will encourage walking there rather than driving to the grocery store, therefore decreasing pollution from their cars into the atmosphere.

Equity (by Abbey Cadden, PLN 505)

The Green New Deal shifts traditional economic priorities and financial investment away from carbon-emitting industries because they disrupt the climate and negatively impact humans, wildlife, and global ecosystems. In its place, the GND proposes to rebuild a new economy through modern technologies that do not burden the environment or vulnerable populations. One of the main motivators for this change is a reflection that the current economy is inequitable because a very small group of individuals accept the financial benefits while the rest of the population must accept the risks.

Creating a community garden in the East End neighborhood enhances the environmental and social equity concepts outlined in the GND because it increases access to greenspace and outdoor activities, incentives revitalization, and improves accessibility to locally grown, healthy food.

✚ Access to greenspace and parks

- Traditionally, people of low-income and people of color face more challenges accessing public parks and greenspace.
 - Only 52% of Pennsylvanians say they can safely walk to a park. Geographic distance, access to vehicle, and cost of public transit = barriers to outdoor recreation.
 - 88.4% of Pennsylvania's outdoor enthusiasts said that outdoor recreation is an essential part of their lives.
 - 80.7% said they would like to participate more in outdoor activities (2015 DCNR, SCORP).
 - Most participants in the African American group indicated that they felt uncomfortable in certain recreation areas, particularly at events where they did not encounter many other minorities (2020 DCNR SCORP).

✚ Community Revitalization

- The Market Street Plaza Lot is located in an area of the East End neighborhood that is surrounded by commercial property and off a main road. While there may be benefits to having many businesses in the neighborhood, certain aspects of commercial properties can detract from residential property values. However, community gardens have shown to improve the surrounding land value. Notably, this type of land improvement provides benefits that do not result in gentrification in the way that walking paths and trails do.

✚ Food Deserts

- Over two million Pennsylvanians live in low-income areas with limited access to grocery stores. 79% of Pennsylvanians believe it's important that children have access to healthy foods in their neighborhoods and 70% of Pennsylvanian's support financial incentives to build grocery stores in low-income areas ([Source](#)).

Technology (by Dan Rafalovitch, PLN 505)

The technology industry in the 21st century is nearly attached to every corner of the economy, resources, and political cloud behind planning. The Green New Deal aims to take the energy footprint behind technological industries and make transitions towards clean and sustainable footprints against clean energy, the manufacturing process, and uses of transportation and agriculture. Companies such as Google, Apple, Microsoft, Amazon, etc. are all making an effort to reduce carbon emissions and work only off renewable energy, yet the carbon emissions levels, towards climate change, keep widening. In order to achieve better results on lowering global emission levels big corporate tech companies will need to stop doing the bare minimum and fully focus on reliable, new, and revolutionary agendas. Suppliers and distributors will have to focus on promoting the exchange along supply chains across the globe. This includes, reporting results of company carbon footprints properly, helping consumers and distributors make sustainable decisions, and advocating for reusable and future reliable policies. The Green New Deal focuses on understanding the importance between technological products that provide a productive relationship to our society and the protection of the natural environment/employee environment. Therefore, creating an agenda that aims to reduce waste and require producers to take more active roles in the entire cycle that revolves around their products. This entire Green New Deal will help companies form a better energy footprint behind the products they sell around the world. The big tech companies will also be encouraged to create a better work environment, better living wages, and create benefits that encourage the right and ability to unionize for world-class employee to consumer experience. The Green New Deal aims to encourage and change the dynamic of the technological industry. Creating a positive energy footprint and massive influence that will in turn create clean energy, more efficient manufacturing, and creating greener ways of transportation and agricultural processes. The technological industry plays a big role in the efficiency of The Green New Deal.

✚ Creating a community garden in the East End neighborhood that emphasizes on The Green New Deal policies would:

- Use 100% organic material with no chemicals
- Using water barrels, tanks, and permeable surfaces to collect rainwater
- Repurposing house-hold items without using garbage
- Compost all possible scraps - Green Building initiative
- Sustainable product development (composting)

Community Benefits (by Rich Alimonti, PLN 403)

The Green New Deal brings with it many community benefits which include decreased crime, opportunity to build community ties, and many health benefits. Health benefits include cleaner air if we make our homes and buildings more energy efficient by cutting down on the use of fossil fuels. Other health benefits the deal calls for include universal high-quality healthcare, the clean-up of hazardous waste sites and access to clean water, healthy and affordable food, and nature. Residents would also find it much easier to live an active lifestyle if the deals call for guaranteed jobs with fair pay, family and medical leave, paid vacations and retirement security became commonplace. Living an active lifestyle is possible if residents can take vacations to clear their minds and not worry about how they put dinner on the table if they couldn't work for medical reasons.

Thousands or even millions of decent and rewarding new jobs would be created for residents of small communities who may have lost their jobs because of the declining fossil fuel industry.

Gives residents the opportunity to actively participate in helping create the policy that will in turn create a better life for their family and themselves. (Especially those who live in communities already facing environmental degradation)

The deal also calls for free higher education which could possibly cut down on the amount of crime in many communities, providing residents with the opportunity to better themselves through higher learning that may not have been affordable before.

The deal would help build community ties if everyone brainstormed ideas together that would help their communities. For example, residents would get to know their neighbors through participation in creating the policy and would often see each other at the community gardens spread throughout their communities.

4. Team D's Initial Ideas

Patricia Quinn, PLN 505

✚ The proposed Green New Deal would have America move to zero carbon emissions. This would mean an end to the use of any fossil fuels. It would completely alter the nature of our economy and create a personal financial crisis for many Americans, especially the already disadvantaged. The second part of the Green New Deal aims to address this through universal healthcare, job training, and an increase in social programs. Should America move to zero carbon emissions, one change likely to coincide with that would be a shift from imported fruits and vegetables to locally grown. Building a community garden in a lower-income neighborhood can address this proposed shift, albeit in a small way. It can keep an at-risk community healthy and teach future generations how to grow healthy food and live a more sustainable lifestyle. It would be an asset to the neighborhood and strengthen the local community, which will help support those the most in need.

✚ The John Green Memorial Park Lot

- Assets and Disadvantages to the Site: All Macadam/Concrete. Convenient location. Some fencing exists?



Photo 10 – The John Green Memorial Park Lot

Caitlin Pedersen, PLN 505

- ✚ Take the two rectangles slabs and convert this area into a garden
- ✚ Cover up the 4 square markings
- ✚ Build raised garden beds to minimize demolition on the site
- ✚ Fence the two rectangle slabs using bushes to minimize any basketballs from disturbing the garden beds to create a natural buffer/fence

- ✦ Put removable metal fencing around the garden beds to limit pest access but allow for humans to work in the beds
- ✦ Remove the already existing metal fencing around the lot to make access easier and more appealing for visitors - similar to already existing remodels of the John Green Memorial Park
- ✦ Repaint the crosswalk between the two sections of the John Green Memorial Park to promote walkability and safety - add in a flashing button light
- ✦ Create some type of rain garden on site that would sloped to collect rain water - then build up one side to promote seating on the wall



Photo 11 – Vertical gardens and raised beds

- ✦ A combination of vertical gardens and raised beds over the existing impervious surface to keep costs low. Another benefit of this is that the land is owned by the borough and they may be skeptical that it will get used. These structures are impermanent and can easily be removed if necessary.

Alex Sankaran, PLN 403

- ✦ Redo and regrade sidewalks surrounding the lot
- ✦ Community fruit and vegetable garden
- ✦ Remove some of the excess concrete
- ✦ Remove fencing that prevents easy access
- ✦ Paint parking spaces on the surrounding streets
- ✦ Create an entrance from Matlack St.

Michael Staropoli, PLN 403

- ✦ Place a comfortable bench in an open space near the low lying horizontal garden beds so the elderly can have the convenience to sit and be comfortable and enjoy the sun.
- ✦ Install a bird seed container that accepts quarters and drops a handful of seeds to attract birds. This would entertain children and also, with every quarter, give back to the community. A birdhouse or bird bath would be great as well.
- ✦ Place smooth rocks that community members can paint to create a nice, fun aesthetic. Possibly add a sandbox, or a set of small monkey bars and a kid's slide.



Photo 12 – Bird seed container and sculpture

Even Gardi, PLN 403

- ✦ Remove concrete/macadam most on site

- ✚ Remove metal fencing and add either natural fencing through shrubs/bushes or add wooden fencing.
- ✚ Include entrance from Matlack St. for easier access.
- ✚ Build flower boxes near or on the fence to make the park more inviting.
- ✚ Create community garden boxes that are slightly raised, this will give the elderly more access and make it so they do not have to bend over as much.
- ✚ Add benches surrounding the garden for rest.
- ✚ Replace the surrounding sidewalk and the walkways through the garden with permeable pavers.



Photo 13 – Permeable pavers

Cameron Pursel, PLN 403

- ✚ The green new deal is not only about environmental stewardship, but creating economic programs and plans that further protect and expand environmental causes around the world. I think one of the ways to do this is the creation of:
 - A community garden that operates on this lot with members of the community acting as stewards and educators on plants that can be used and sustainable farming practices
 - A farmers market that operates on weekends, staffed by volunteers, selling low cost produce from both the garden and local farmers. Proceeds would go to the farmers selling goods and back into the community garden, buying supplies and seeds for the gardens operation in coming seasons.
 - The creation of a community land trust that manages the garden and can be expanded to other areas around West Chester borough, in an effort to give back to the local community and aid all residents by providing an excellent source of low cost locally sourced produce.

Community Garden as a Green New Deal Approach (working paper by Dr. Jongwoong Kim)

This paper discusses the implications of building a community garden in an environmentally (built and natural) and socioeconomically disadvantaged neighborhood to achieve the goals of the Green New Deal (GND) policy movement at a local level. Using multiple-case analysis on a select group of community gardens in the United States, this paper explores and describes the relationship between the benefits of a community garden and the values and goals of the GND policy movement.

A typical community garden in the U.S. is a communal space designed, developed, and managed for “urban (being in or close to a city)” agriculture. Frequently built on a vacant lot, the community garden is typically run as a co-op or by a public/non-profit agency. These community gardens are known to bring a range of benefits to their neighborhoods, such as: beautifying open spaces and industrial landscapes; providing healthy food and engaging physical activities; and even reducing crime and strengthening social cohesion within the neighborhoods (CDC, 2010). New York City alone is estimated to have more than 600 community gardens, even if counting only those on publicly owned land (GrowNYC, 2016).

The GND generally refers to a policy or legislation that aims to address the issue of climate change as well as the socioeconomic challenges resultant from the necessary industrial and economic transition to resolve this issue. Originally from, and inspired by, the New Deal (1933-39) of the Great Depression era, the term/concept, Green New Deal, coined by Thomas Friedman, (2007) now popularly refers to the congressional resolution, [H.R. 109](#) (2019). The concept, however, has been around and was a major subject of the federal government policies during the Obama administration (2008) and has been an agenda of election pledges by leading politicians from the liberal parties, such as Jill Stein (2012), Bernie Sanders (2016), and Joe Biden (2020).

In February 2019, Representative Alexandria Ocasio-Cortez and Senator Ed Markey introduced the H.R. 109, a non-binding resolution, “Recognizing the duty of the Federal Government to create a Green New Deal.” It calls to pass legislation that secures a sustainable environment, community resiliency, and healthy food for all people of the U.S. by building resiliency against climate change-related disasters and remediating or repurposing hazardous waste and abandoned sites among many others (The U.S. Congress, 2019).

This paper argues that building a community garden in a disadvantaged neighborhood can contribute to achieving the goals of the GND policy movement at the local level, by helping the neighborhood and its residents: adapt to extreme weather events such as flash floods; create a culture of individual and community health; improve economic conditions with new employment and entrepreneurial opportunities; and strengthen neighborhood social stability and cohesion with community and educational events.

Compared to the sheer scale of challenges the GND policy movement intends to address, a single community garden's impact may look minimal, but thousands of community gardens in the aggregate will bring an impact big enough to help achieve the goals of the GND policy movement.

Chapter 7: Community Gardens

In this module/chapter, the studio students understood what a community garden is; identified multiple types of community garden; identified general characteristics of community garden; and understood typical steps to build a community garden.

1. What is a Community Garden?

"A community garden is any piece of land gardened by a group of people, utilizing either individual or shared plots on private or public land. The land may produce fruit, vegetables, and/or ornamentals. Community gardens may be found in neighborhoods, schools, connected to institutions such as hospitals, and on residential housing grounds." (UCCE's Marin Master Gardeners)

According to ioby (2018), there are about 18,000 community gardens throughout the U.S. and Canada, and they are known to:

1. *Provide aesthetic benefits and fresh, healthy produce to neighbors*
2. *Make neighborhoods safer*
3. *Support food security and financial savings for individuals, especially the unemployed and those with low incomes*
4. *Improve soil, water, and air quality and increase biodiversity*
5. *Help cities save money through storm water retention and purification*
6. *Help keep food and yard waste out of landfills (when they compost)*
7. *Support neighborhood initiatives (e.g., historic preservation) with profit earned*
8. *Provide educational opportunities for kids, adults, and seniors*
9. *Act as a beacon of permanence for traditionally transient communities*
10. *Promote individual health by offering physical activity, stress relief, and a connection to nature*
11. *Promote public health by giving people a space to congregate and define themselves as a community*

2. How to Create a Community Garden?

First and foremost, creating and running a community garden should be done by the community itself, the residents, but we as planners and designers can help them by guiding them through the development process and presenting concepts of community garden as options for them to choose from.

Typical steps (ioby 2018) of creating a community garden (*from a resident/community organizer's perspective*) are:

1. *Make Sure the Site is Suitable*

- A vacant lot is a great start, and check:
 - Does it get a good amount of sun (6-8 hours a day)?
 - Is it relatively flat?
 - Is it within walking distance of nearby homes?
 - Any debris in it?

2. *Get Permission from the Owner*

- Once having a handle on who the land belongs to, reach out to the owner, explain your idea, and ask for permission to use their land for this community benefit.
- In general, it's not a bad idea to touch base with the local government about your plans, while community garden arrangements are often made between a land owner and a group of gardeners.

3. *Check Zoning Laws & Water Availability*

- Since the lot you want to garden on is likely in a residential or mixed-use area, and since local governments are increasingly aware of the benefits community gardening brings, in most cases, zoning won't be a problem (but always check the municipal zoning map).
- Water is the lifeblood of any garden, so find out if a water source is available on the site. If you can't find evidence of one, and the owner isn't sure, contact the local water utility to ask if the property has a water meter.

4. *Formalize Efforts & Crowdsource*

- A community garden is all about community. (And it's also a lot of work!) So, you'll want buy-in from at least a handful of your neighbors before you start.
 - Ask other nearby residents to find out who might be interested in participating, and contact local organizations like block associations (e.g., EENA), houses of worship, gardening societies, and homeowners' and tenants' associations to see if they have any advice or would like to partner with you.
- After you've roused some initial interest, form a group to take charge of the project. Invite the people who show the most interest and have the most time to invest to become your "steering committee."
 - You should also consider forming an association or garden club; eventually, you may wish to incorporate as a nonprofit. Getting organized in this way can help you do things like establish garden rules, open a bank account and handle money, run meetings, and keep track of membership.

5. *Brainstorm a Garden*

- With your team, discuss what kind of garden would best serve the needs of your community and also suit your space. (*In our studio, we are proposing concepts to the community first, working sort of backwards...*)
 - Do you want to grow vegetables, flowers, or both? All organic, or are some pesticides okay?

- Will you have a single space that everyone manages together, or separate plots for individuals to tend?
- Will you be open to the public? If so, how often, and will a member need to supervise?
- Also, you'll need to answer this fun question: What will you name your garden?
- As a part of the brainstorming process, it's a good idea to have some soil from the lot tested for possible pollutants like heavy metals. Search for a public/private lab in your area that provides this service (e.g., WCU Geoscience Dept.).
 - If you do find the soil is polluted, you don't necessarily need to abandon the garden idea altogether, but you will want to consider growing only inedible plants or installing raised beds so you can grow your food in fresh, clean soil.
 - Testing can also tell you about soil fertility and pH: information that will be useful to have when you start preparing the site and selecting your plants.

6. *Budget & Fundraise*

- Now that you have a basic handle on how big your garden will be, what you want to grow there, and who will be involved to start, you can start figuring out how much it will cost to get it going, and make a plan to pay for it. Common costs include:
 - Seeds and/or seedlings
 - Tools: everything from spades and gloves to watering cans and hoses
 - Construction materials for beds, benches, bins, and more
 - Fertilizer and compost
- According to *The Community Garden Start-Up Guide* produced by the UCCE, starting a basic community garden typically costs between \$2,500 and \$5,000. Your mileage may vary! The most common ways of funding a community garden include:
 - Membership dues
 - Cash or in-kind sponsorship from community organizations and/or your city's department of parks and recreation
 - Applying for grants
 - Crowdfunding

7. *Prep & Building the Site*

- You can absolutely start to prepare your lot for gardening before your planting plan is totally worked out and before you've raised all the money you need. In fact, getting people away from the planning table and into getting their hands dirty is a great way to boost morale when it's all starting to seem like too much!
- You can also gain some management practice by corralling your steering committee and potentially other volunteers to take care of tasks like removing any debris from the site, marking where your garden beds and paths will go, and putting up fencing (at least eight feet tall is best, to curb vandalism, and include a gate big enough for a truck to drive in).

- Every garden is different, but most successful ones wind up containing some version of the following:
 - 15 or more plots assigned to individual members, located in the sunniest part of the garden.
 - Raised bed plots (if any) that are no more than 4 feet wide, and between 8 and 12 feet long.
 - In-ground ground plots (if any) that measure between 10 by 10 feet up to 20 by 20 feet.
 - Paths between beds that are no narrower than 3 feet—you want wheelchair accessibility!
 - Soil that is amended with aged compost or manure.
 - A simple irrigation system for every four plots. If no one in your group is very knowledgeable about irrigation, try asking a landscape contractor, plant nursery, or garden center pro to help you develop a basic layout and materials list.
 - A tool shed or similar structure for storing your supplies.
 - Recycled metal shipping containers make super storage sheds!
 - A picnic table where gardeners can sit, relax, and have a snack.
 - Locating this in the shade of trees is best, or you can build a simple arbor and plant it with vines.
 - A composting area. (Wood pallets can often be sourced for free from local businesses, and make great DIY compost bins! Search online for simple construction plans.)
 - A sign—of course! You want the whole neighborhood to know your garden’s name. It’s also wonderful to shout your sponsors out with signage, and to include an email address or other contact info for neighbors who have questions about what you’re doing. Make sure this info is in multiple languages if your community is bilingual.
- Once your basic infrastructure is in place, you can start planting seeds and/or seedlings, as your garden plan dictates. Kids love this part, so don’t hesitate to recruit a few to help!

8. Celebrate

- Do not, we repeat, do not work so hard that you forget to have fun! Make a point of organizing an opening celebration for your garden—like a barbecue or potluck lunch—to thank everyone who’s put their time and effort into it so far, and to mark the milestone you’ve come to.

9. Remember

- Issues are inevitable. Not to end on a bum note, but nothing is perfect: most every community garden will experience at least occasional problems with vandalism, security, miscommunication, trash, weeds, and gardener drop-out. *The Community Garden Start-Up Guide* mentioned above gives some great tips on dealing with each of these problems. Whatever comes up, let your group know that you believe in your collective ability to handle it, do your best to address the situation, then keep on keeping on!

Each student wrote a case study about a community garden of their interest and/or familiarity. Each case study has the following sections though each can have a different and/or more descriptive title:

1. **Title** (title of your case study)
2. **Introduction** (brief introduction and overview of your case)
3. **Background** (important background information about your case)
4. **Challenges** (significant challenges faced by the community while creating the community garden)
5. **Success** (how the community garden became successful and/or overcame the challenges)
6. **Conclusion** (summary of and lessons learned from your case)
7. **References** (a list of references)

The full versions of these case studies are attached in the Appendices section of this report.

3. Community Garden Case Studies

The full versions of these case studies are attached as the Appendices of this report.

1. E.D. Robinson Urban Garden (by Mahmood Sheikh, PLN 505)

The creation of the E.D. Robinson Urban farm has had very positive effects on both the 11th Street Bridge neighborhood and the city of Wilmington as a whole. Although the garden hasn't resolved all of the issues that the people within these communities' face, it is part of the solution to such problems, and it stands as one of many examples of how greening a community can be very beneficial for its residents.

2. Midtown Miracle Community Garden (by Jonathan Brouse, PLN 403)

Community gardens bring the community together. They create a sense of place, and a place for people to help their local community. With Midtown Miracle Garden, we can see how much food they've come to donate after only being open for nearly six years. Along with donations, the garden hosts free monthly workshops hosted by local and regional professionals who provide hands on knowledge. Overall this community garden seems to have taken an old abandoned lot in downtown Savannah and turn it into the talk of the town.

3. Cultivating Place: Urban Development and the Institutionalization of Seattle's P-Patch Community Gardens (by Aidan Henken, PLN 403)

There is a slight catch which creates today's challenge. "Green gentrification" is now happening within Seattle because of these gardens beautifying space, thus increasing land value. As I stated earlier, Seattle is now a growing and booming city in relation to population and its size of its economy. Seattle is attracting a new demographic which can be described as the "creative class" which is exactly how it sounds. Innovative young minds with money to spend. Inherently, lower class citizens in which the program is meant to help are also being pushed out if they cannot afford the cost of living. Which also brings me back to one of the authors main point of advocacy and community engagement between the

city and the people. I think this idea can be useful in our efforts to bring a community garden to the East End Neighborhood here in West Chester. By creating a connection between the citizens and the government, trust is built as well as collaboration. We also cannot forget the goals and values of what we are attempting to create and must promote equity as well as inclusion. By getting the community directly engaged, we can push forward to creating a more sustainable and diverse community.

4. Duke Farms: A Community Garden Seeded in Organic Practices (by Caitlin Pedersen, PLN 505)

Duke Farm's Community Garden allows members to connect by growing fresh and organic food with the aim to teach how to work in harmony with nature. The Community Garden does not only allow for food to be grown but it is set up as an educational program by offering lectures through classroom settings, walk and talk, and hands-on workshops. A Duke Farm's visitor can learn anything from how to landscape for wildlife by creating a backyard habitat to seed collection and storage (Stewardship at Home, n.d.). Duke Farms still follows the last will and testament of Doris Duke as her life purpose was for Agro-Ecology, a commitment to habitat restoration through the use of renewable energy and sustainable operations, which originates from her father's dream farm (AgroEcology, n.d.).

5. Saving Wiota Street Garden (by Rich Alimonti, PLN 403)

I believe the Wiota Street Community Garden is an essential part of the lives of the residents who live in its surrounding area. The community garden is necessary because it causes local grocers to sell their produce at a lower price which benefits even those who don't regularly buy from the farm stand. The garden also acts as a standard for quality, which residents of the community believe the local grocers like Aldi lack. I learned that community gardens provide many services but one that is commonly overlooked is the ability to provide community service opportunities. Volunteering at your local community garden is a great way to not only help your community, but it's also a great opportunity to learn through hands on practice how to grow your own fresh produce which can be life changing for a less fortunate family who typically wouldn't purchase fresh produce because they don't have the money. I learned that community gardens like Wiota Street have the ability to donate to their local food banks which isn't emphasized enough because they are providing healthy options to the residents who rely on them, and these food banks would not be able to provide them with nearly as much fresh produce if not for substantial donations from community gardens like Wiota Streets. The garden is responsible for creating unlikely friendships of residents which ultimately strengthens their neighborhood ties. Finally, it goes without saying that the community gardens decision to include a library pick up and drop box at its perimeter is highly appreciated by the community and its residents because it provides them with easy access to books and other educational materials that probably wouldn't have been put there if the lot was redeveloped for apartments. This Wiota Street community garden is a heartwarming story because its caretakers believed in it, and wouldn't stop their efforts to push back against its sale even though they acknowledged back in 2016 that they lacked substantial leverage to stop the sale but never gave up hope.

6. The Spring Gardens in Philadelphia, PA (by Ryan Cavanaugh, PLN 403)

Today, The Spring Gardens is one of the most beautiful and exclusive community gardens in Philadelphia. There is currently a very big waitlist to receive a plot in the garden, members of the Philadelphia community can spend a very long time on these waitlists until they receive a plot in the garden. The

garden is also highly endorsed by local elected leaders, restaurants, and multiple other types of businesses because of its beauty.

7. Borland Green in Pittsburgh, PA (by Wesley Hicks, PLN 403)

Community Gardens can improve the sense of community in neglected neighborhoods. The garden has been a place to educate children and adults and connect the surrounding community to nature.

8. Sugar Creek Garden and Herb Farm (by Jordan Engel, PLN 403)

The key thing to remember and reflect on in this case study is making something from nothing, lemons out of lemonade. The case study of Sugar creek is one of the many community gardens being maintained from the Wylde Center. Land that at one point was nonproductive turned into something that benefits the whole community for an unlimited amount of reasons. This process needs to be prioritized worldwide in especially urban centers that are food deserts. Many urban centers do not have access to local produce since they are so far from any farms.

9. The Hershey Community Garden (by John Newman, PLN 403)

The Hershey Community Garden is a prime example of a successful not-for-profit venture. Challenges financially are met with kindness from the community, as well as donors invested in the Garden's charitable mission. The Garden's struggles have shown the importance of efficiency with resources, as they have been able to make the most out of limited money. The specific example of the low versus high-quality hoses demonstrates the organization's attention to detail in operating the Garden efficiently.

10. Fenway Victory Gardens in Boston, MA (by Emily Reilly, PLN 403)

This part of the "Emerald Necklace" is a very historic and important part of Boston's community. It was a part of helping the nation during wartime and still has lasting benefits today. It survived demolition proposals and was fought for by the community. This community garden taught me more about historic preservation and that sometimes it's better to save rather than rebuild. The Fenway Victory Garden is loved by many in the Boston Community.

11. The Garden that Grew into a Movement: The Liz Christy Community Garden (by Maeve Dowd, PLN 403)

Overall, the Liz Christy Community Garden is not only widely successful in creating a space for community members to come and learn about gardening while engaging in valuable community outreach, but also creating a movement across New York City. Today the GreenThumb Program is the largest urban gardening program in the nation and has fostered about 550 gardens around New York City (History of the Community Garden Movement). This program and these gardens would not have been so widely successful if it were not for Liz Christy and the Green Guerillas for spending a whole year showing their community how important a community garden would be. Without the countless volunteers who spent hours working to create that space and create something beautiful and influential for their community in a time of need, who knows if New York City would have so many successful gardens today.

12. Rutgers University Community Gardens (by Michael Staropoli, PLN 403)

Success struck the Rutgers Gardens once they decided to take it seriously. Allocating funds in the right areas and finding the right people, who care, can make an empty area into an even more beautiful

landscape than imaginable. The future of Rutgers Gardens is very bright. They have truly created something phenomenal.

13. Hillside Community Garden (by Abbey Cadden, PLN 505)

The Hillside Community Park is an example of how important it is to properly plan and thoughtfully engage the community in advance of breaking ground on a project. The Hillside Park community garden faced challenges in its early days but quickly found solutions due to the overwhelming graciousness of the surrounding community. Had the AAJRB not invested time into the community on the front end, the community may not have been there throughout the process to facilitate the project's successes. Communities considering a public garden can learn lessons from Hillside by adopting their methods and using a public-private partnership to create a well-run community asset like a public garden.

14. Conshohocken Community Garden (by Hadjer Ahner, PLN 505)

Conshohocken Community Garden's autonomous model is realistic and exemplary. Establishing bylaws that maintain order and advocate for sustainable gardening helps prolong the operation and success of the garden for years to come. Resolving challenges with fair and thoughtful solutions ensures reliable member involvement and enhances communication, which in turn serves the community and strengthens its unity.

15. Eastwick Community Gardens Case Study (by Alex Sankaran, PLN 403)

The Eastwick Community Gardens is the largest community garden in Philadelphia, comprised of the Common Ground and Victory Gardens. It faces a significant challenge with location, bordering Philadelphia International Airport. Expansion plans for the airport have often clashed with the wishes of community members. Through all of this, community stakeholders have helped make the Eastwick Community Gardens a staple of the neighborhood. The food grown in the garden helps feed many families, and the gardening techniques on display help inspire others in and around the city to create their own community gardens.

16. Schuylkill River Park Community Garden (by Julia Bonomo, PLN 505)

Overall, the community garden has been a success for over 30 years, and will continue to be successful as more and more people join the waiting list for a plot. This particular community garden is exactly what a community garden is all about. Prior to being official, the gardeners and CCRA members worked together for a good cause, and continue to do so to this day. This case study showed me how hard these people fought and what community gardens are really about, working together. I believe that the combination of community gardens and parks is a great idea because it creates even more social connections between local people, adds a great aesthetic, and overall flows together. Both the garden and park benefit from one another, which has been an important role in both of their successes.

Chapter 8: Methods and Analysis

Students used a Methods & Analysis worksheet to begin planning and designing community gardens. This simple worksheet guided each team to prepare for the final stage(s) of the course project, “planning and designing community gardens for the Historic East End.” Each team completed the worksheet (the third, Results of Analysis/Assessment, column). Following the Recommended Approach/Method in the second column, each team responded to the Task/Question in the first column.

Table 3 – Methods & Analysis Worksheet

#	Task/Question	Recommended Approach/Method	Results of Analysis/Assessment
1	Does it get a good amount of sun (6-8 hours a day)?	ArcGIS Urban (sunlight & shadow analysis)	<ul style="list-style-type: none"> • Lot/Team A’s Response: “Yes. The lot receives ample sun light during the growing season.” • Lot/Team B’s Response: “Yes.” • Lot/Team C’s Response: “Full sunlight until 4:00 PM. Full shade at 5:45 PM” • Lot/Team D’s Response: “Yes, every part of the site receives at least 7 full hours of sun.”
2	Is it relatively flat?	CalcMaps	<ul style="list-style-type: none"> • Lot/Team A’s Response: “Yes. The lot is relatively flat. The lot is 400 ft. above sea level with a flat elevation profile.” • Lot/Team B’s Response: “Yes, it is flat.” • Lot/Team C’s Response: “Yes, it is very flat with negligible sloping.” • Lot/Team D’s Response: “Yes.”
3	Is it within walking distance of nearby homes?	Any ArcGIS product or Google Map Check whether it is within 3 blocks or 300 meters (1000 ft.) from the nearby homes.	<ul style="list-style-type: none"> • Lot/Team A’s Response: “Yes. There are several homes within walking distance, about 50 ft. from the lot.” • Lot/Team B’s Response: “Yes, the garden is surrounded by homes and community facilities.” • Lot/Team C’s Response: “Yes, there are homes within one block of our site and many homes surround the area.” • Lot/Team D’s Response: “Yes.”
4	Any debris in it?	Google Streetview or site visit (if available)	<ul style="list-style-type: none"> • Lot/Team A’s Response: “There is no debris on the site. The lot is ready to prep.” • Lot/Team B’s Response: “No debris.” • Lot/Team C’s Response: “No debris in our site via google earth.” • Lot/Team D’s Response: “Currently a concrete pad with wire fence around it but no debris.”

#	Task/Question	Recommended Approach/Method	Results of Analysis/Assessment
5	Who's the owner of your site?	Chescoviews	<ul style="list-style-type: none"> • Lot/Team A's Response: "Housing Authority of the County of Chester (HACC)" • Lot/Team B's Response: "Walter L. Butcher III and Myrtle T. Butcher" • Lot/Team C's Response: "Clifford DeBaptiste (3 parcels)" • Lot/Team D's Response: "West Chester Borough"
6	Which zone your site sits in?	West Chester Zoning Map	<ul style="list-style-type: none"> • Lot/Team A's Response: "Neighborhood Conservation District 2." • Lot/Team B's Response: "NC-2 (Neighborhood Conservation District 2)" • Lot/Team C's Response: "Neighborhood Conservation Group 2; Block Class C" • Lot/Team D's Response: "It is in the Town Center (TC) Zoning District and it is a Block Class B."
7	Is a water source available in/near the site?	Ask the owner or the utility company	<ul style="list-style-type: none"> • Lot/Team A's Response: "Yes, there is a water source available right on our site (Chester County GIS Hub)." • Lot/Team B's Response: "Yes, water source is available in/near the site." • Lot/Team C's Response: "Aqua - public water access" • Lot/Team D's Response: "There is a small stream running behind the lot next to the railroad tracks."
8	Will the garden grow vegetables, flowers, or both? All organic, or are some pesticides okay?	<p>Make suggestions (e.g., choose 5 crops you'd recommend)</p> <p><i>*We do this for the concept development and the cost-revenue estimation. The EE residents will eventually decide on this.</i></p>	<ul style="list-style-type: none"> • Lot/Team A's Response: "The garden will grow vegetables and flowers; all organic." • Lot/Team B's Response: "There will be a garden board set up to decide what will be grown. (the crops most likely to be grown will be produce like tomatoes, cucumbers, potatoes, carrots and onions). The garden will also have flowers." • Lot/Team C's Response: "Vegetables and flowers are permitted. Tall growing plants must not block sunlight in other plots. The garden will focus on organic herbicides, if there is a persistent weed problem, we may consult experts for advice; if no solution works, some chemical pesticides may be used. Tomatoes, peppers, zucchini, corn, pumpkin (Seasonal crop rotation)" • Lot/Team D's Response: "There should be flowers in common spaces and organic vegetables in garden beds. High yield vegetables like peas, beans, tomatoes, zucchini, and salad greens are recommended. A social media group may help guide gardeners to alternatives to pesticides."

#	Task/Question	Recommended Approach/Method	Results of Analysis/Assessment
9	<p>Will the garden have a single space that everyone manages together, or separate plots for individuals to tend?</p>	<p>Make a suggestion (e.g., choose from the “allotment” type, the “communal” type, or the combination of both)</p> <p><i>*The same reason applies here as the above.</i></p>	<ul style="list-style-type: none"> • Lot/Team A’s Response: “The garden will have a common space that everyone can manage together, along with separate plots for individuals to tend to.” • Lot/Team B’s Response: “Both; the garden will have a big single space in the center of the garden, and it will be surrounded by separate plots.” • Lot/Team C’s Response: “Semi-communal; mostly individually owned plots with a few communal plots” • Lot/Team D’s Response: “A communal garden would make the most sense for a model that sells some of its produce to fund community projects. Members should commit to a certain number of hours in the garden each week.”
10	<p>Will the garden be open to the public? If so, how often, and will a member need to supervise?</p>	<p>Make a suggestion.</p> <p><i>*The same reason applies here as the above.</i></p>	<ul style="list-style-type: none"> • Lot/Team A’s Response: “The garden will only be available for tours, in order to spark interest and participation. Tours shall be given by individuals with specific expertise. Everyone else besides staff members are not allowed near. This is to prevent any damage and or litter to affect the garden. Tours must be booked ahead of time via call or online to sign up for designated time slots.” • Lot/Team B’s Response: “The garden will be open to the public. People who sign up for a plot have to pay a fee to use it and will be responsible for it. The garden board will oversee the activities of the members in the garden.” • Lot/Team C’s Response: “Yes, open to the public every day. Plot owners will volunteer shifts to supervise the garden.” • Lot/Team D’s Response: “The garden could be open to the public on weekends and by appointment, so that nearby schools could use them as a learning tool.”
11	<p>What will be the name of this garden?</p>	<p>Give a temporary name to your proposed concept.</p> <p><i>*The same reason applies here as the above.</i></p>	<ul style="list-style-type: none"> • Lot/Team A’s Response: “East Barnard Community Garden.” • Lot/Team B’s Response: “The garden will take the church’s name and be called the Bethel AME Church Community Garden.” • Lot/Team C’s Response: “Bolmar Street Gardens” • Lot/Team D’s Response: “John O. Green Memorial Garden (named after a former police chief of the borough, also the namesake of the park)”

#	Task/Question	Recommended Approach/Method	Results of Analysis/Assessment
12	Where can the residents do soil testing?	<p>Make a recommendation.</p> <p>Check where/how the residents can do soil testing affordably.</p>	<ul style="list-style-type: none"> • Lot/Team A's Response: "Soil Testing Kit from the Amazon." • Lot/Team B's Response: "The garden board will provide soil testing kits. The kits will be paid for through fundraising, grants, and the fee gardeners have to pay to use a lot. Kits can also be purchased online through sites like Amazon." • Lot/Team C's Response: "Penn State's Agricultural Extension (Tests run as low as \$9 and can include add-ons for an additional cost.)" • Lot/Team D's Response: "Tests are available from Penn State's Agricultural Analytical Services Lab. Additionally, tests can be found on Amazon for under \$20."
13	Budget	EPA Urban Farm Business Plan Worksheets	See Chapter 9 (1/2) of this report.
14	Funding Sources	Identify and recommend potential funding sources (and suggest how they might be obtained).	See Chapter 9 (2/2) of this report.
15	Designing the Garden	ArcGIS Urban, ArcGIS Pro, and SketchUp (if necessary)	See Chapter 10 of this report.

Chapter 9: Funding Plans

As 2/3 of the course's milestones were achieved, students initiated physical planning and design of the proposed community gardens and decided on funding sources to make recommendations for financial planning.

According to Ioby (2018), most successful community gardens wind up containing some version of the following, although every garden is different:

- ✚ 15 or more plots assigned to individual members, located in the sunniest part of the garden.
- ✚ Raised bed plots (if any) that are no more than 4 feet wide, and between 8 and 12 feet long.
- ✚ In-ground ground plots (if any) that measure between 10 by 10 feet up to 20 by 20 feet.
- ✚ Paths between beds that are no narrower than 3 feet—you want wheelchair accessibility!
- ✚ Soil that is amended with aged compost or manure.
- ✚ A simple irrigation system for every four plots.
- ✚ A tool shed or similar structure for storing your supplies. (Recycled metal shipping containers make super storage sheds!)
- ✚ A picnic table where gardeners can sit, relax, and have a snack. (Locating this in the shade of trees is best, or you can build a simple arbor and plant it with vines.)
- ✚ A composting area. (Wood pallets can often be sourced for free from local businesses, and make great DIY compost bins! Search online for simple construction plans.)
- ✚ A sign. (You want the whole neighborhood to know the garden's name. It's also wonderful to shout your sponsors out with signage, and to include an email address or other contact info for neighbors. Make sure this info is in multiple languages if your community is bilingual --- e.g., Spanish and English.)

The proposed community gardens (which are also built and designed in an ArcGIS Urban 3D model) aimed to reflect most of the above principles. Each team decided on some details about the layout of their proposed community garden, using the [Urban Farm Business Plan Worksheets by EPA](#). Each team first decided on the following elements of the garden:

- ✚ Total length
- ✚ Total width
- ✚ Width of row
- ✚ Footpath area
- ✚ Tool storage area
- ✚ Composting area
- ✚ Other

Once each team completed the worksheet (#17), students began financial planning, by identifying potential funding sources.

Typically, in addition to those basic "inputs (seed, water, etc.)" costs, common costs include:

- ✦ Tools (everything from spades and gloves to watering cans and hoses).
- ✦ Construction materials for beds, benches, bins, and more.

Assuming each community garden needs \$1,500 for the common costs, each team calculated how much should be funded at the beginning of the project, by adding the common costs (\$1,500) to the "Annual Cost of Inputs" previously calculated in the worksheet #17. (According to The Community Garden Start-Up Guide authored by UCCE, starting a basic community garden typically costs between \$2,500 and \$5,000.)

The most common ways of funding a community garden include:

- ✦ Membership dues
- ✦ Cash or in-kind sponsorship from community organizations and/or your city's department of parks and recreation
- ✦ Applying for grants
- ✦ Crowdfunding

After each team calculated how much will be initially required for their proposed community garden (\$1,500 for Set Up + Annual Costs of Inputs), each team created a Funding Plan with a set of recommended approaches and strategies.

Each team's EPA Worksheet (full details) is available in the Appendices section of this report.

Lot/Team A

Estimated annual cost of input for 3 seasons: $\$1995 (\$1995 + \$1500) = \3495 . Percentages are calculated based on \$3500.

- **Membership dues (21%):** \$30 per person (estimated \$750 total)
 - Team A's Explanation: "We chose this funding source to attract members of the community with a low membership fee. We think with 25 members at \$30 per person we will be able to make \$750. We want to keep it a yearly fee and at \$30 dollars we believe it is affordable enough to keep people committed during the non-growing season, but also allow them a very good deal during the growing season to take home produce. Members will be allowed access to the garden as a recreation area, they will be allowed access to the community produce. Possibly even have volunteers put together produce boxes every harvest that way we all members are receiving the same amount of produce. Members also have access to the community compost bin. Members are also expected to help maintain the garden. A garden association should be formed and members should have the opportunity to elect representatives to chair the association. This association is all voluntary, but is necessary to help organize and maintain membership. We want to promote a healthy diet and membership participation by keeping our membership fee affordable. The garden will offer fresh fruits and vegetables in a walk distance and can promote community engagement."
- **Cash or in-kind sponsorship from community organizations and/or your city's department of parks and recreation (29%):** \$1000

- Team A's Explanation: "We have chosen to ask the West Chester parks and recreation department to sponsor our community garden with a \$1000 donation. We figured that the parks and recreation department would be likely to sponsor the community garden because it benefits and promotes the well-being of the community. It also engages community members in outdoor physical activity, which is the whole goal of the parks and recreation department. Residents can initiate contact with the parks and recreation department by attending community planning meetings and asking for their help in sponsoring the community garden."
- **Applying for grants (29%): \$1,000**
 - Team A's Explanation: "We wanted to use grants to help fund our source because there are lots of different types of grants to choose from. Especially, on the state and federal level there are lots of different grants that we could apply for that would most likely be able to cover our \$1,000 goal. The issue with federal and state grants is that there is a larger number of applicants and organizations applying for these funds. Federal and state grants will exceed our \$1000 goal. That's why we also wanted to look at local grants available because there would be more incentive for a community organization to award us the grant because the money would be staying within the community and there is a smaller applicant pool. Also, we believe our \$1,000-dollar goal is not unreasonable for a local organization to grant us."
 - Federal/State:
 - Urban Agriculture Resilience Program
 - [EPA Environmental Education](#)
 - Team A's Explanation: "The EPA provides grants to organizations that provide environmental education. Our garden can provide educational opportunities for youth and the surrounding area."
 - [People's Garden Grant Program](#) (PGGP)
 - Private:
 - [Fiskars Foundation](#)
 - Team A's Explanation: "The Fiskars Foundation provides \$3500 grants as well as \$1000 for equipment to create community gardens across North America."
 - Local:
 - West Chester Downtown Foundation Community Grants
 - Team A's Explanation: "The West Chester Downtown foundation offers grants to organizations within the West Chester Community that have a goal of bettering the area and citizens of West Chester. Our community garden project would fall under this criterion as it will add a lot of value to the East End community and West Chester in general. For the local grant through the West Chester Downtown Foundation you must submit an application that defines the organization and the purpose for the grant. You must create a mission statement and then continue to define how the \$1,000 (or whatever amount you ask for) will be used."

Lot/Team B

Estimated annual cost of input for 4 seasons: \$9809 (\$9809+\$1500) = \$11309.

- **Membership dues (40%):** \$4524 (\$25 monthly fee, approximately 15 lots)
 - Team B's Explanation: "Planning for individual lots. Members are repaid with a location for buying and selling of their crops."
- **Cash or in-kind sponsorship from community organizations and/or your city's department of parks and recreation (40%):** \$4524
 - Team B's Explanation: "The opportunity of larger sums of money (West Chester University, Bethel Church, and Melton Center). Select a member of the garden board, act as negotiators for these organizations."
- **Crowdfunding (20%):** \$2262
 - Team B's Explanation: "Gives us an opportunity to gauge interest of the overall community. Go fund me and Donation pots (distributed in popular areas). Twitter, Facebook any type of online social media or local newspaper/source."

Lot/Team C

Estimated annual cost of input for 3 seasons: \$3572 (\$3572+\$1500) = \$5072.

- **Membership dues (25%):** \$1268
 - Team C's Explanation: "We selected this funding source because we pre-planned that growers would purchase their plot(s) on an annual basis. To make the memberships affordable, we chose to limit the dues to 25%. The membership dues will be directly applied towards the cost to run the community garden (e.g., utilities, materials, etc.). The membership dues should be affordable but lucrative enough to cover 25% of the operating expenses. We believe we can fit a minimum of 15 plots bringing the dues to \$84/plot to cover the utility costs. However, we can create plots at various sizes and create a scaled plot size and membership system. This will offer a more affordable option for those looking for a smaller plot. Additionally, members may elect to be reimbursed if grants and other fundraising efforts yield more revenue than needed to cover expenses (see sections below or more details.) In addition to covering the cost of utilities, the dues will also allow members to use the communal plots to grow additional crops with the benefit of splitting the work between each of the participants in the plot. Members will also benefit from free programming where experts come to educate about different aspects of gardening."
- **Cash or in-kind sponsorship from community organizations and/or your city's department of parks and recreation (50%):** \$2536
 - Team C's Explanation: "Given the number of businesses and strength of community support in West Chester, we felt that we could successfully fundraise 50% of the operating costs through sponsorships. Sponsorship program ideas include: purchasing a pathway in the garden, naming tools after businesses, sponsoring a plot where businesses compete for the biggest/heaviest produce (e.g., biggest pepper), advertising signage, and more. The non-profit overseeing the garden will coordinate with the local business district and the

Borough's Park and Recreation department to deploy this fundraising campaign. The community garden non-profit volunteers will conduct outreach to businesses and residences for fundraising. Additionally, the non-profit will also sell portions of each grower's yield at local farmers markets in order to generate revenue. There is a growers market in the Borough that operates year-round with significant patronage. This location would be a prime spot to sell the garden's produce."

- **Crowdfunding (25%): \$1268**
 - Team C's Explanation: "Crowdfunding is an important tool because it provides the opportunity to leverage donations from sources located outside of the West Chester area. For example, someone who moved out of West Chester may see the Kickstarter campaign and feel that a community garden would be an important asset for their former home, and so they donate. Kickstarter campaigns also allow donors to receive goods in return; if donors provide funding upfront, it will help cover immediate expenses and in return, the donors will receive produce once the garden becomes productive. While crowdfunding presents a viable fundraising option, we are limiting it to 25% of the planned income because we feel sponsorships are likely to be the main funding source. There are many crowdsourcing platforms available but the fee structures are variable. The group will consider the most affordable platform at the time of roll-out."

- **Applying for grants (0%): \$0**
 - Team C's Explanation: "Due to the unreliability of grant awards, we chose to dedicate 0% of the planned funding from grants. However, the non-profit overseeing the garden will apply for grants from the state, federal government, non-profits, and private entities and if grant applications are successful, the awarded funds will be put towards reimbursing plot membership dues and/or pro-rating the following season's dues. This option allows the non-profit to budget with stable funding sources while still affording the members the opportunity to be partially reimbursed for their dues. This also incentivizes the non-profit volunteers to seek out grant opportunities and maximize their potential reimbursement. The volunteers may consult with the Borough staff or business sponsors for assistance in applying for grants if necessary. For example, an accountant who purchased a sponsorship might offer assistance to help the group develop annual spending plans that can be included in grant applications."

Lot/Team D

Estimated annual cost of input for 4 seasons: $\$3297 (\$3297 + \$1500) = \4797 .

- **Cash or in-kind sponsorship from community organizations and/or your city's department of parks and recreation (84%): \$4000**
 - Team D's Explanation #1 (why): "Due to the location of this garden being positioned inside the John O Green Memorial Park the West Chester Borough Parks & Recreation Department should provide a grant of \$4,000 each year to cover any renovations/expenses/additions to the garden. In the world of parks renovation \$4,000 is less than what it would cost to repave the area that the garden covers and this amount is cheaper than purchasing a piece of play equipment that is compatible with those in the first remodel of the park across the street."

This fund could also improve the walking path/stones in the garden or help fund a portion of the purchase of a gazebo to put in the garden area after a couple of successful seasons.”

- Team D’s Explanation #2 (where): “The West Chester Borough Parks & Recreation Department will do this as they ‘strive to make West Chester a healthy, fun community’. Their mission statement is ‘to provide a variety of safe, affordable and enjoyable educational and recreational programs and activities that enhance the quality of life in West Chester now and for generations to follow’ (west-chester.com). By funding a portion of the garden expenses the Parks & Recreation Department is allowing for the community garden to be affordable for its residents by reducing membership fees. The garden will also be an educational place that enhances the quality of life of the residents whether they are a member of the garden, a passerby, or a park visitor.”
- Team D’s Explanation #3 (how): “The Parks & Recreation Department is an agency under the power of West Chester Borough. All the information to contact them is at west-chester.com. This sub site for the Parks & Recreation Department has current COVID updates, summer camp info, bus trip information, events, park rules and regulations, sponsorship opportunities, applications & forms, and FAQ’s. More details can be found on the site or if any information is not covered a visitor can reach out to the department directly for an answer.”
- **Crowdfunding (16%): \$797**
 - Team D’s Explanation #1 (what): “Gofundme.com is a popular crowdfunding website. The Fillmore Gardens Community Garden in New Orleans successfully used that website to meet its goals. Causes.com can work if the entity is a nonprofit. Indiegogo has a good reputation for community projects. The fees for all sites can differ, so that needs to be considered as well.”
 - Team D’s Explanation #2 (how): “Starting with the chosen website, the crowdfunding campaign will need to be advertised. A strong social media presence is crucial. The more people who are aware of the campaign, the more donations. Additionally, it can help bring in larger donations or others who may be interested in sharing their time.”
- **Applying for grants (0%): \$0**
 - Team D’s Explanation: “We did not choose this option as the majority of grants require that your group be a 501(c)(3) nonprofit, and it would cost money to do that and then the grant money would not be guaranteed.”

Chapter 10: Imagining Community Gardens

To *design* the proposed community gardens, an ArcGIS Urban model of West Chester (courtesy of Dr. Gary Coutu) was used. In this model, an ArcGIS Urban Project, “East End Community Gardens,” was created, through which each team can create and design their proposed community garden in a 3D environment. (The ArcGIS Urban has a designated feature/command called "Project" to plan and design hypothetical development scenarios in an ArcGIS Urban model.)

References

List of references

Appendices

1. Green New Deal + Community Garden Team Presentations

2. Community Garden Individual Case Studies

3. EPA (Urban Farm Business Plan) Worksheets