BRANDYWINE RIVER/ NORTHEAST WILMINGTON REDEVELOPMENT PLAN

DRAFT DECEMBER 2013

KSK ARCHITECTS PLANNERS HISTORIANS INC.

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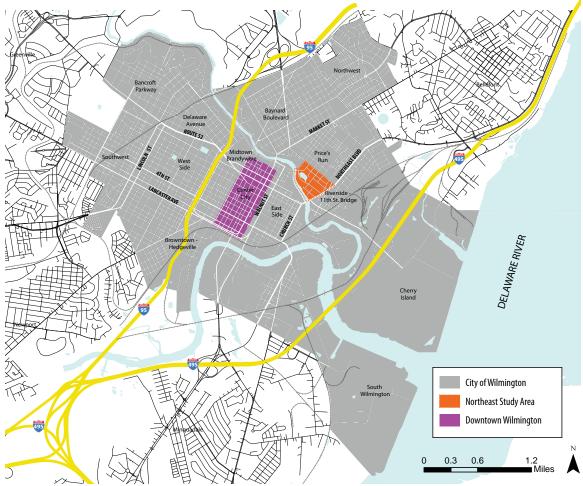
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INTRODUCTION

The study area is located just east of downtown Wilmington along the Brandywine Creek. It is bounded by Jessup Street to the North, Vandever Avenue to the east, Northeast Boulevard to the south, and Brandywine Creek to the west. Its location on the Brandywine Creek make it potentially attractive for private development, however lack of roadway infrastructure and lack of an agreed upon "vision" for development of the area make it difficult to move forward with plans.

At the same time the area offers the potential for development of additional public open space, and improved public access to the Brandywine Riverfront. There is extensive public access open space along the Brandywine from the city limits in the west, to the Market Street Bridge in the east. The study area could offer the potential for development of a continuous riverfront public park along the Brandywine, in addition to trail connections along the river.

The study area is characterized by underutilized vacant land, large publicly owned parcels, former industrial uses, and adjacency to the Brandywine Creek that addresses both development and public open space goals. In recent months, the City has been approached by developers interested in developing vacant parcels, particularly the large City owned Diamond State Salvage site that is located directly on the banks of the Brandywine Creek. In order to better prepare for and



STUDY AREA CONTEXT MAP

City of Wilmington, Delaware

respond to these development proposals, the City commissioned KSK to identity development issues and constraints for the study area and create an overall development concept plan for vacant parcels along the Brandywine Creek. The goal of this study is to create a blueprint for this section of northeast Wilmington to ensure that future development responds to the needs of the City and the study area. An important component of this process is reaching a consensus with stakeholders and property owners so that their future development plans can be incorporated and work with the overall development concept plan. A major asset of the project is the large amount of City owned parcels and the limited number of property owners, which will make coordination and consensus much simpler.



Vacant waterfront property along the Brandywine Creek with views of Center City Wilmington

PREVIOUS PLANNING EFFORTS

Neighborhood Comprehensive Development Plan for the Price's Run/ Riverside-11th Street Bridge Analysis Area

This plan, completed by the City of Wilmington in 2012, gives recommendations to guide and direct future growth and development for the communities and neighborhoods located in the study area. The boundaries of the plan are Market Street to the north, 35th Street to the east, Amtrak/SEPTA rail line to the south, and the Brandywine Creek to the west. The plan includes recommendations that impact the study area.

Relevant economic development recommendations include the following:

- High priority should be given to developing the vacant post-industrial land along the Brandywine Creek, which will require the City to move quickly on construction of the 12th Street Connector Project.
- Development should include a mix of residential and commercial uses along the Brandywine Creek and be linked by a river walk

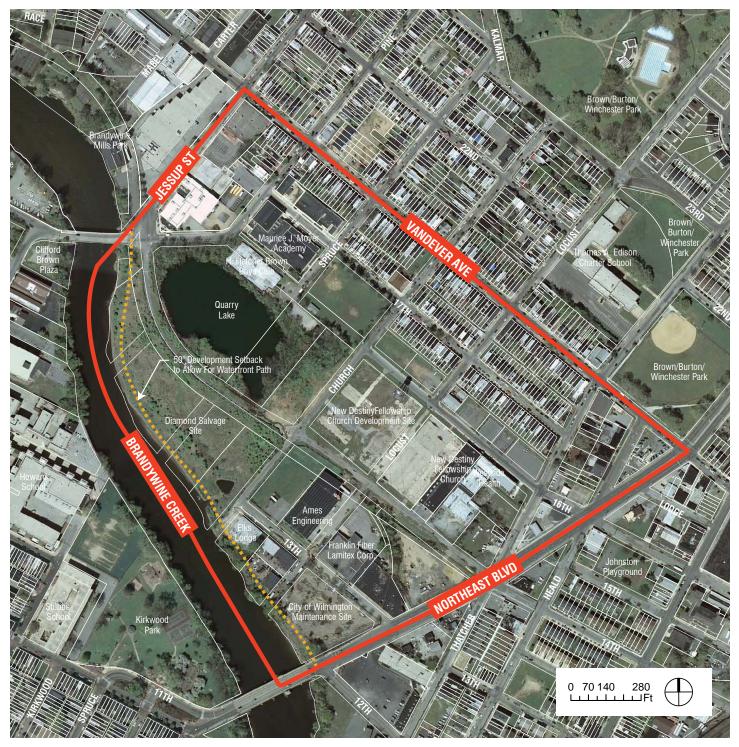
Relevant housing recommendations include the following:

- Encourage a mix of housing types for varying income levels
- Search for funding for façade programs and residential rehabilitation
- Solicit private market investment into the study area
- Address the need for market rate and affordable housing
- Advance homeownership
- Work with L & I to address abandoned and vacant properties
- Collaborate with CDCs in the study area

Relevant transportation recommendations include the following:

- Northeast Boulevard streetscape enhancements
- Augment Saturday and Sunday DART service

STUDY AREA MAP



Relevant parks and recreational facilities recommendations include the following:

- Establish a river walk along the Brandywine Creek similar to the one along the Christina River
- Fill the quarry adjacent the Brown Boys and Girls Club to create open space; In reviewing this recommendation, the project team does not think this is the best solution for developing the quarry site. The existing quarry lake is a very attractive and could be used in its existing condition as a feature in a new recreation area without going to the expense of draining and filling it.

Relevant zoning recommendations include the following:

- Rezone C-5 district around Northeast Boulevard to C-2 (no reason for this given in the report)
- Rezone M-1 district (Boys & Girls Club & Moyer Academy) as R-3; there are no M-1 uses currently located in the area, and the area is surrounded by a solid R-3 residential community

Brandywine Greenway East – Concept Plans and Options

The city completed a concept plan for the Brandywine Greenway east of the Van Buren Street Bridge. The plan includes the study area. The study proposed a 10' wide path within a 20' easement along the river edge within the study area. It identified limits of potential building development on the Diamond State Salvage parcel, bounded by the public works site to the south, and the new connector street along the 14th Street railroad right-of-way to the north. The study proposed improvement of the public works yard adjacent Northeast Boulevard as a passive green park, with the potential for additional parking and a connection point to the East Coast Greenway. The study proposed a "gateway" plaza at the intersection of the new 12th Street Connector and Northeast Boulevard.

Greater Brandywine Village Revitalization Plan

The Greater Brandywine Village Revitalization Plan, completed in 2001, included development recommendations for the study area. The study proposed that GBVR boundaries be expanded to include the area bounded by 24th Street to the north, the Brandywine River to the south, Jefferson and Van Buren Street to the west, and Church/Locust Street to the east.

The study identified the Northeast Wilmington Brandywine Riverfront as a priority development area. The study conceived the entire area as developed with new offices and light industrial uses, with extensive areas of surface parking. The Quarry Lake would be retained and the new multiuse trail completed along the river. The west end of the Diamond State Salvage side near the 16th Street Bridge would be developed as public open space, adjacent the Quarry Lake.

DEVELOPMENT HISTORY

The majority of the study area along the Brandywine Creek was originally developed to capitalize on transportation on and power from the creek. There were several water-powered mills for industrial uses in the area, with a focus on grain milling. Around 1760 a bridge was built over the Brandywine Creek that allowed for residential development to expand out from the Creek to Vandever and 17th Streets. Industry continued to be the main use in the area during the 1800s and 1900s, including sites for the Brandywine Lumber Company, Delaware Electric Supply Co., Delaware Oil Products inc., Pierce, Ellsion Petroleum Company, Diamond State Junk Company, 16th Street Quarry, and Wiley Cork Factory. These industrial uses were served by the former 14th Street rail spur that ran parallel to the Brandywine Creek between Northeast Boulevard and north of Pine Street. As industrial uses declined along urban waterfronts in the late 1900s, many of the manufacturing businesses closed down and left the area. As a result, the 14th Street rail spur was taken out of service. A more recent active industrial along the waterfront was Diamond State Salvage, a salvage vard that operated between 1949 and 1992. After Diamond State Salvage closed it was designated as a superfund site and significant remediation was undertaken to clean the contaminated land. The 16th Street Quarry closed and the quarry naturally filled with water creating the quarry lake. The Wiley Cork Factory closed and was eventually sold to the New Fellowship Destiny Church and some remediation of the land was undertaken. A few heavy commercial and light manufacturing uses remain today in the southwest corner of the study area; however the majority of the old industrial sites are now empty.



Former Diamond State Salvage site

ACCESS & CIRCULATION

The main thoroughfares into the study are Northeast Boulevard, 16th Street/Pine Street, and Vandever Avenue. The 11th Street and 16th Street bridges serve as the main connectors across the Brandywine Creek to downtown Wilmington. The 16th Street Bridge is narrow, with only 36 feet between the parapets, and 5 feet wide sidewalks. The narrow sidewalks do not create a comfortable condition for pedestrians.

13th, 14th, 16th, and 17th Streets provide north and south connections through the site; however in some cases the streets end halfway through the study area or the ROW area is unformalized (such as 14th Street). East and west connections are provided by Jessup Street, Church Street, Spruce Street, and Locust Street. There is a lack of road access to the parcels in the northwest corner of the study area (Diamond State Salvage Site and Quarry Site). There is also a lack of connection to the neighborhood directly south of Northeast Boulevard since the main thoroughfare in that area, 12th Street, dead ends at Northeast Boulevard and does not extend into the study area.

The study area has access to the regional highway network with connections to both I-95 and I-495. These connections are not strong, due to the lack of direct roadways through the study area along the Brandywine Creek.



16th Street Bridge

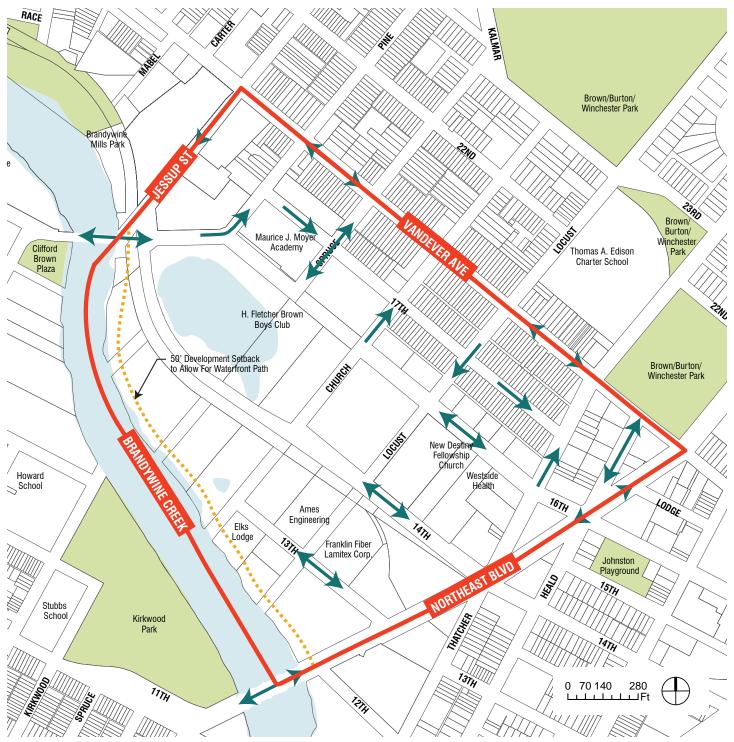


11th Street Bridge



Northeast Boulevard

STREET CIRCULATION MAP



CURRENT LAND USE & OCCUPANCY

The study area contains many different land uses. Most of the vacant former industrial land is located in the northeast section of the study area along the Brandywine Creek and in the center of the site between Spruce Street and Locust Street. A recent new use on the waterfront just south of the vacant industrial land is the newly relocated Elks Lodge at 13th Street and Church Street. Light industrial and heavy commercial uses such as Franklin Fiber Lamitex Corporation, Ames Engineering, and a City of Wilmington construction staging site are located in the southwest corner of the study area along 13th Street. This section of the study area also has a strip of one-story garage buildings along 13th Street and Locust Street that has automotive repair and vacant uses.

Below is a more detail description of two operating industrial uses in the area: Franklin Fiber and Ames Engineering.

Franklin Fiber Lamitex Corporation

The Franklin Fiber Lamitex Corporation building is a single-story industrial manufacturing building located at 972 E. 13th Street. The building is approximately 45,000 sq.ft. Franklin Fiber Lamitex Corporation was founded in 1921 and has approximately 30 employees. The firm manufactures and fabricates industrial highpressure laminates, and molded and extruded thermoplastic and thermoset parts. Products include high voltage electrical insulation, and munition and rocket tubes for the military.

Ames Engineering

Ames Engineering occupies a 30,000 sq.ft. singlestory industrial building at 805 E. 13th Street. The firm, founded in 1986, manufactures packing machinery. The firm has approximately 25 employees.

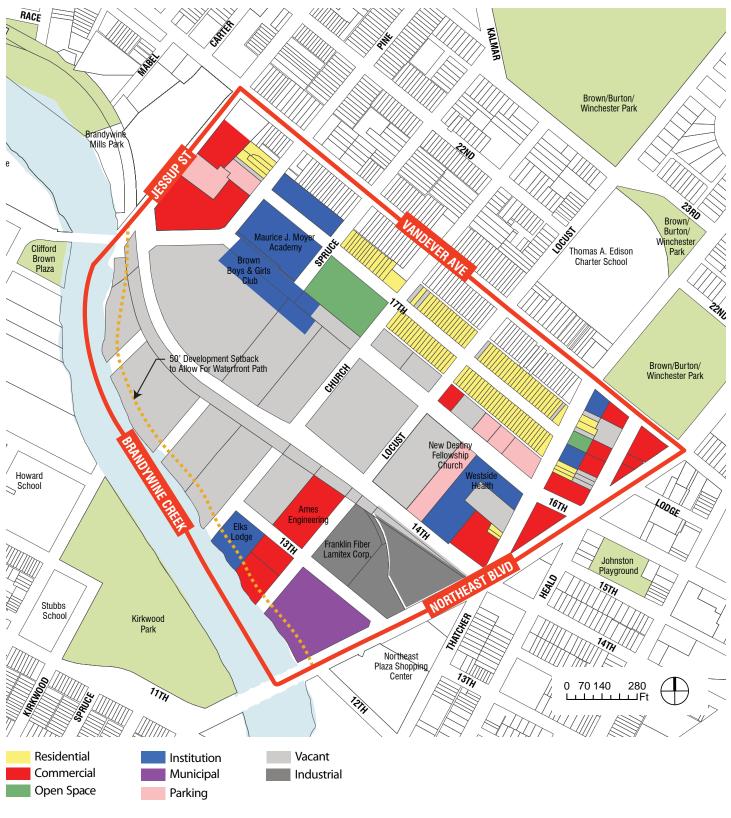
Residential use is concentrated along 17th Street between Spruce and Thatcher Street with blocks of two-story rowhomes. 16th Street between Thatcher Street and Locust Street has a strip of community serving institutional uses including Westside Health and the New Destiny Fellowship Church with parking for those uses located across the street. Other institutional uses in the study area include the Brown Boys & Girls Club and Maurice J. Moyer Academy in the area around 17th and Spruce. Parcels fronting Northeast Boulevard are zoned C2, C5 and W4. C2 (secondary business center) is a neighborhood commercial-oriented zone that supports neighborhood retail and non-nusiance businesses. However, the C5 zone is a heavy commercial zone that includes non-neighborhood auto-oriented uses, paint and body shops, hauling terminals, and recycling centers, and light manufacturing operations. To support quality redevelopment of the study area, as well as surrounding residential blocks, the heavy commercial C5 parcels fronting Northeast Boulevard should be rezoned to C2.

The intersection of the diagonal Northeast Boulevard with the regular city grid has created small triangular shaped parcels along the boulevard which are difficult to develop. Many of these parcels are occupied by such uses as used car lots (Northeast Auto Sales), gas stations (Gulf), auto parts (NAPA) and auto repair shop, reflecting the C5 zoning. Neighborhood-oriented commercial uses are limited to the Northeast Plaza Shopping Center, Northeast Market Convenience Store at 14th Street, and Snowballs Restaurant at 16th Street.

Most of the auto-oriented uses fronting the boulevard are poorly maintained, unsightly, and adversely impact perceptions of the surrounding neighborhood. While limited streetscape improvements have been completed to the boulevard, including new medians and street tree plantings, significant additional improvements are needed to Northeast Boulevard to create an attractive gateway to potential development in the study area from the east.

There are additional commercial uses on 16th Street between Locust and Thatcher Street. Former singlestory industrial buildings have been renovated to provide facilities for New Destiny Fellowship Church programs, Westside Health Community Health Center, and other social services. The buildings have been attractively renovated and are well-maintained, and could provide a focus for further commercial and community service related uses along 16th Street to the west. Other community service uses include Shelia's Child Care on Heald Street.

LAND USE MAP



City of Wilmington, Delaware

MAJOR PROPERTY OWNERSHIP

The City of Wilmington controls a large portion of land in the study area, and it owns most of the Brandywine Creek frontage between 16th Street and 11th Street. The City owns the vacant former 4.25 acre Diamond State Salvage site along the Brandywine Creek between the 16th Street Bridge and Church Street and a 1.89 acre construction staging site that is bound by the Brandywine Creek, Northeast Boulevard, 13th Street, and Locust Street. Another major property owner is the H. Fletcher Brown Boys and Girls Club, which controls all the land on the former 9.41 acre 16th Street Quarry site roughly bounded by Pine Street, Spruce Street, 17th Street, Church Street, and the former 14th Street Rail Spur right of way. This property includes the Brown Boys and Girls Club building, a recreation field, the quarry lake, and vacant land south of the lake. The New Destiny Fellowship Church owns 6.84 acres of land between Church Street, 16th Street, Thatcher Street, and 14th Street, some of which is used for their existing church, Westside Health, and parking; the rest of their land is vacant and is intended for future community serving and faith-based development by the church. The old 14th Street rail spur right of way is owned by the City of Wilmington through the Urban Development Action Grant (UDAG). Another waterfront site, the recently relocated Elk's Lodge at Church Street and 13th Street is on a 0.6 acre parcel of land with direct access to the Brandywine Creek. Just south of the Elks Lodge are two underutilized parcels. The first is a 0.3 acre parcel fronting on 13th Street that is owned by 13th Street Inc. The parcel is characterized by vacancy and automotive repair shops. The second is 0.43 acre site with direct access to the Brandywine Creek. It houses an automotive repair shop and is owned by 2103 Inc.



New Destiny Fellowship Church vacant lot

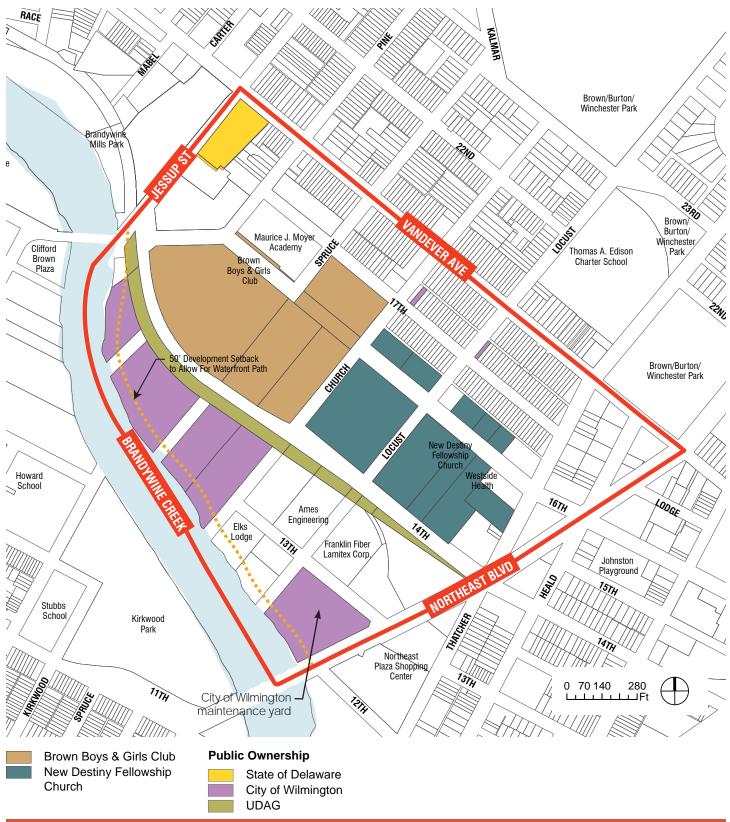


Diamond State Salvage site



Vacancy and underperforming auto repair shops on 13th Street

MAJOR PROPERTY OWNERS MAP



KEY POTENTIAL REDEVELOPMENT PARCELS

The three sites in the study area that are key to redeveloping the parcels are the Diamond State Salvage site, the 16th Street Quarry site, and the New Destiny Fellowship site. All three are former industrial sites that have either already received or will need some brownfield remediation for development to occur.

Diamond State Salvage

The 4.25 acre Diamond State Salvage site is located along the Brandywine Creek just south of the 16th Street Bridge, north of Church Street, and west of the former 14th Street rail spur right of way. Previous industrial uses of the site include the Brandywine Lumber Company, Delaware Electric Supply Co., Delaware Oil Products, Inc., Pierce, Ellison Petroleum Company, and Diamond State Junk Company. Its last use as a salvage yard for automobiles, batteries, compressed gas cylinders, appliances, and empty drums lasted from 1949 to 1992. The site was designated as a Mid-Atlantic Superfund site in 1998.

As a result of years of heavy industrial uses on the site, the soil on Diamond State Salvage was heavily contaminated and in need of remediation. In 1999 and 2001, the EPA removed 200,000 of contaminated soil from the site and neighboring parcels and backfilled with clean "fill" material. It was then assumed by a BrightFields study that there were no longer any surface soil concentrations of PCBs (chemicals deemed hazardous to human and environmental health). The EPA also completed a third phase of cleanup, where they excavated and disposed of the lead-and PCB-contaminated stream bank and associated mudflats. Once the EPA cleanup was completed, it was sold to the City of Wilmington with the intention of being redeveloped.

Since Diamond State Salvage closed down, the site has been vacant. The land currently contains large amount of trees and vegetation and provides direct access to the Brandywine Creek. The site is not currently accessible by car and would require a new road right of way to be developed along the abandoned 14th street rail spur in order for it to be redeveloped. There has been significant interest from a variety of developers recently in the site, with suggestions for site programs ranging from senior housing, to mixed use development, to high-end residential development.

16th Street Quarry

The 7.23 acre 16th Street Quarry site is located across the 14th Street rail spur right of way from the Diamond State Salvage site. The bulk of the site is comprised of the quarry lake and the Brown Boys & Girls Club. The site was originally a hardrock quarry that was eventually filled with water. The lake itself is approximately 2 acres and has depths of up to 60 feet. Due to concerns about toxic materials in drums at the bottom of the lake, the EPA conducted a site cleanup in 1998 which consisted of the removal and disposal of 17 drums and one tank. No significant contamination was found in the quarry sediments that were sampled, and no further cleanup was deemed necessary at the site.

The Brown Boys & Girls Club overlooks the quarry lake. The original club structure was located at the corner of the ballfields at 17th and Spruce Street; the existing 2-story structure was built in 1977 and is accessible via Spruce Street. The Club is open to boys and girls between the ages of 6 and 20. It offers educational, recreational, and cultural activities, as well as prevention, developmental, and mentoring programs. In addition to the main club building, the club also owns and maintains the recreation fields at 17th and Spruce. The other area of the site, also owned by the Club, is a vacant area south of the quarry like that fronts on Church Street.

The Club has no future plans to expand on their property, and they do not have the capacity to further develop the site. They expressed a potential interest in selling or partnering with the City for some sort of development, particularly if the result was open space. The Price's Run/Riverside-11th Street Bridge Anaylsis Area Neighborhood Comprehensive Development Plan suggested draining the quarry lake and replacing with water



Birds-eye view of the quarry lake

POTENTIAL REDEVELOPMENT SITES MAP



16th Street Quarry

New Destiny Fellowship Church City of Wilmington Maintenance Yard with fill to create a recreation space. While a recreation is an appropriate use for this land, the project team thinks that the lake can be used as an amenity within a surrounding open space area. For example, the lake could be used for water sports and swimming, which would create issues with liability insurance on the site. Another idea is to partially fill the lake and use the remaining portion as a fishing spot.

New Destiny Fellowship Church

The church development site is made up of three parcels located between 16th Street and 14th Street on the site of the former Wiley Cork Factory: a 0.61 acre parcel with a 2 story building that is the current home of the New Destiny Fellowship Church; a 1.42 acre vacant parcel next to the church building that is bordered by Locust Street; and a 2.33 acre vacant parcel bordered by Locust Street and Church Street. The New Destiny Fellowship Church was given the site by the City of Wilmington to develop for community services. In 2005, DNREC certified the site as a brownfield. The abandoned factory on the sites was razed, and the property was remediating by removing existing soil and replacing it with a 2-foot soil cap.

The current status of the New Destiny Fellowship Church's development plans for the site is unknown. However, the Church has been actively engaged leasing space on their properties in recent years. Both Westside Health and the State of Delaware Department of Health & Social Services lease their space from New Destiny.

City of Wilmington Maintenance Site

The 1.9 acre City of Wilmington maintenance yard is located at 13th Street and Northeast Boulevard. The site has frontage along the Brandywine Creek as well as street frontage on Northeast Boulevard and 13th Street. The City uses the site for storage of construction materials.

The site is well located for development with its access to and views of the Brandywine Creek, its proximity to the 11th Street Bridge and the East Side neighborhood, and its street frontage on Northeast Boulevard. New development on this site could create a more attractive gateway into the Northeast neighborhood and facilitate other developments along the Brandywine Creek.



Existing New Destiny Fellowship Church building



Potential New Destiny redevelopment site at Locust Street & 16th Street



City of Wilmington maintenance yard

ENVIRONMENTAL ISSUES

Much of the study area east of 17th Street to the Brandywine River was originally developed for heavy industrial uses, served by the former 14th Street railroad. While some industrial uses, such as Franklin Fiber Lamitex remain, most of the former industrial land is now vacant.

Diamond State Salvage Site

One of the key potential redevelopment parcels is the Diamond State Salvage site, a 4.2-acre site bounded by the Brandywine River to the south, the former 14th Street railroad right-of-way to the north, Church Street to the east, and the 16th Street Bridge to the north. Previous owners included the Brandywine Lumber Company, Delaware Oil Products, and Ellison Petroleum Company. From 1949 to 1992 the site was owned by Diamond State Salvage Company, which processed automobiles, batteries and tanks for salvageable material. The site is currently owned by the City of Wilmington. The site, including the shoreline, was found to be contaminated with lead and PCB's and classified by EPA as a Superfund site. Since 1998, EPA secured and stabilized the site. Buildings and structures were demolished, and most site contamination has been excavated and properly disposed of offsite, at a cost of \$11.9m. Over 200,000 tons of contaminated soil and debris were removed and the site backfilled with clear fill. Monitoring of the site since removal of contaminated soil has indicated that the clean-up has been safe and effective. However, while there is no longer any surface contamination, there are still PCB's in the subsurface unsaturated and saturated soil that can impact groundwater. Most of the site is now vegetated, with ground cover plants and grasses.

The site may have residual contamination remaining, and thus environmental oversight will be required during construction activities. Any potential developer will be required to negotiate with DNREC – SIRB for a BDA to perform an investigation, and if necessary remedial action. Required action on the part of the developer will include a site investigation, including an evaluation of soil, sediment, and groundwater on the property for the presence of hazardous substances.

Additional environmental review and analysis should be undertaken to assess any additional remediation that may be required for residential reuse.

16th Street Quarry Site

The 16th Street Quarry is a long abandoned, water-filled former quarry, and occupies a site of approximately 2 acres. The site is owned by the H. Fletcher Brown Boys and Girls Club, and borders the Diamond State Salvage site to the south. In 1998, EPA found approximately 45 drums submerged in about 50 feet of water. Twenty-eight of the drums were empty and left in place. Seventeen drums and one tank were removed and disposed of. One of the drums was found to contain hazardous substances in low concentrations. Quarry sediments were sampled and contained no significant contamination. EPA determined that no further cleanup was necessary at the site. In the past, a proposal has been made to fill the quarry with surplus construction fill material, or partially fill the quarry to create a fishing pond.

Water within the quarry is crystal clear, to a significant depth, and the quarry supports significant wildlife, including a healthy painted turtle population. The quarry lake is an attractive feature that could become a focal point and amenity for potential residential development and should probably be retained.



Diamond State Salvage

ZONING & IMPLICATIONS OF CURRENT ZONING

The majority of the site is current zoned W-4 Waterfront Residential/Commercial. This includes all parcels west of the 14th Street rail right-of way and the parcels bounded by Church Street, 16th Street, Thatcher Street, and 14th Street. According to the Wilmington Zoning Code, district W-4 is intended to protect and encourage investment in well-planned and designed multiple-activity developments through a mixture of development controls such as height limits, FAR, and building setbacks. These development controls are detailed in the City of Wilmington Zoning Code Waterfront Review Standards, which requires that new construction, additions and renovations in the Waterfront Zoning Districts conform to the Waterfront Review Standards. All proposed plans for development within a waterfront district are required to be reviewed by the Planning Commission prior to their approval to ensure that they meet the criteria of the zoning code. Some of the goals and standards in this zoning classification include the following:

- Establish a continuous Riverfront Walkway along river frontages
- Create pedestrian-friendly public streets and blocks with high quality streetscapes
- Create high-quality, well-designed attractive interest
- Encourage a mix of uses
- Minimize the visual impacts of parking, loading, and other service facilities

More specific development standards are detailed below:

- Develop land parcels with a grid pattern on interconnecting public access streets
- Development blocks are to be 250'-500' by 250'-500' with a parcel diagonal of no more than 600 feet
- Building setbacks with first floor commercial, retail, or office frontage are to be between 16 and 20 feet from the curb line to the building face
- Building setbacks with first floor residential frontage are to be between 20 and 25 feet from the curb line to the building face
- Building setbacks for waterfront buildings are to be 50 feet from the

bulkhead line to the building face (which shall include the bulkhead or bio-edge buffer adjacent to the river, and the 20° wide public access easement)

- FAR between 0.8 and 2.0 depending on type of development
- Building height limit of 6 stories or 72 feet
- Maximum lot coverage of 0.5

The entire Brown Boys & Girls Club and most of the parcels fronting 17th and Vandever Avenues are zoned R-3 One-Family Row Houses. While this zoning makes sense for the rowhouses along 17th and Vandever Avenues, it is less appropriate for the large quarry site which would fit better into the W-4 zone. Building standards in the R-3 District include the following controls:

- Building height limit of 3 stories or 40'
- No FAR limit

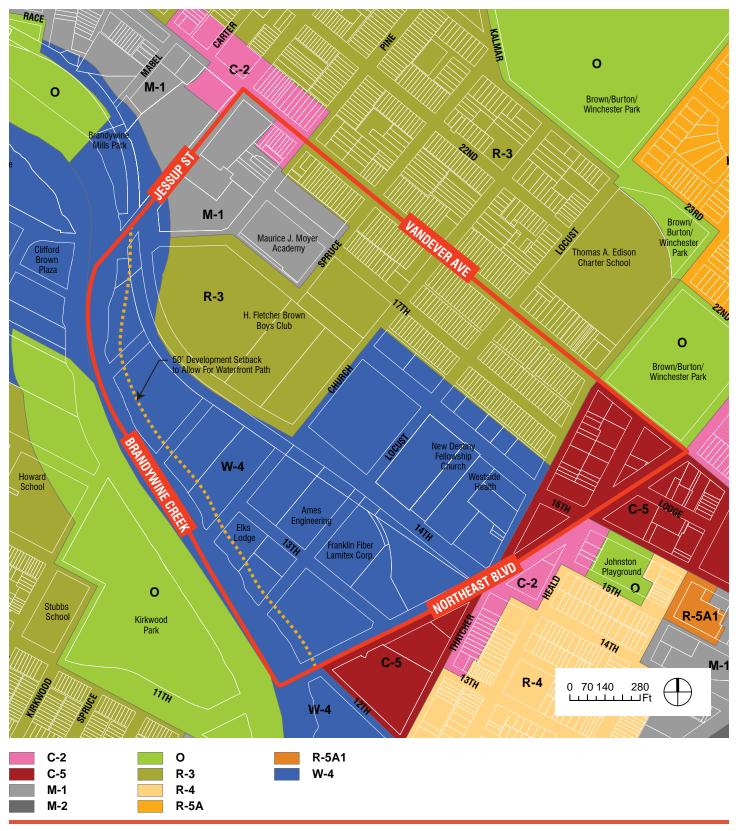


Brown Boys & Girls Club in the R-3 Zone



Rowhouses on 17th Street in the R-3 Zone

EXISTING ZONING MAP



City of Wilmington, Delaware

- 15' building setback
- No more than 10 rowhomes in a group without access to the rear yard from the street

There is a small section of the study area zoned C-2 Secondary Business Commercial Centers located at the corner of Vandever Avenue and Pine Street. These parcels are the beginning of a small commercial zone on Vandever Avenue that extends north of the study area. There are a few ground floor commercial establishments in this area; however most of the buildings remain residential. Permitted uses in the C-2 District include conversion of single family homes for use by more than 2 families, retail store for personal services, offices, and public and private garages.

The southwest corner of the study area south of Thatcher Street is zoned C-5 Heavy Commercial, which is in keeping with the high traffic corridor of North East Boulevard that it abuts. Permitted uses include storage warehouse/yard, auto paint/ body shop, commercial sports park, public utility substation, etc. Building standards in the C-5 District include the following controls:

- Building height limit of 4 stories or 55'
- 3.0 FAR
- No prescribed setback

The other main zoning area is M-1 Light Manufacturing in the northeast corner of the study area. Despite this designation, however, there are very few manufacturing uses in this zone. Uses include the a charter school, a healthcare center, and a daycare. The main manufacturing use is the recently opened Brandywine Millwork building at Jessup Street and Pine Street that produces gloves in a rehabilitated building fronting the Brandywine Creek. Permitted uses in the M-1 District include book publishing, research, testing, or experimental laboratory, light manufacturing processing, fabricating, or repair establishment, and wholesale sales, warehousing, or storage of any commodities. Building standards in the M-1 District include the following controls:

- Building height limit of 4 stories or 55'
- 2.0 FAR
- 40' building setback for streets less than 80' wide



Gas station on Northeast Boulevard in the C-5 district



Maurice J. Moyer Charter School in the M-1 district



Community performing arts building in the M-1 district

FLOODPLAIN/FLOODWAY

Topography in the study area slopes from west to east, from an elevation of 36'-40' at 17th and Pine, to 6'-8' at 13th and Northeast Boulevard. Much of the study area lies within the 100-year floodplain. Generally, only the area north of 16th Street is outside the 100-year floodplain elevation of 14'. Most of the area east of Spruce and south of the former 14th Street railroad, including portions of the Diamond State Salvage site, is at an elevation of 6' to 10', or 4' to 8' below the 100-year flood elevation.

Under the National Flood Insurance Program (NFIP), all new construction of residential structures in the floodplain must be elevated so that the lowest floor (including a basement) is elevated above the base flood elevation (BFE). This can be achieved in the three ways, elevation on fill; elevation on columns; or elevation on walls or crawl space. An unfinished enclosure usable solely for incidental parking of vehicles, building access, or storage can be located below the base flood elevation if it is not a basement.

Under NFIP regulations, a space is not regarded as a basement if it is open to grade on at least one side. Such areas are designed to be flooded. All elements of the building below the BFE must be constructed of flood-resistant materials. All utility systems must be located above the BFE.

Basement parking is permitted in non-residential buildings as long as the basement is flood-proofed up to the base flood elevation.

DNREC recommendations for new development in the floodplain include a provision that the lowest floor, including basement, and all equipment and machinery, be elevated to at or above 18" above the base flood elevation. Non-residential structures may provide dry flood-proofing such that the lowest floor of the building and all utilities are enclosed, with areas usable for parking and storage. The elevation of the floor of the enclosure must be at or above the lowest adjacent grade on at least one side of the building.

Based on these criteria, first floor elevation of new development would need to be at elevation 15.5 to provide 18" above the 14' base flood elevation. For below grade areas to be used for parking and storage, below grade elevation would need to be at a minimum elevation of 8' to be at the lowest adjacent grade on at least one side of the building. Assuming a below grade parking deck level of 8', first floor elevation of a residential structure would

need to be at 18, allowing for an 8' ceiling height and 2' structural depth for the lowest level.

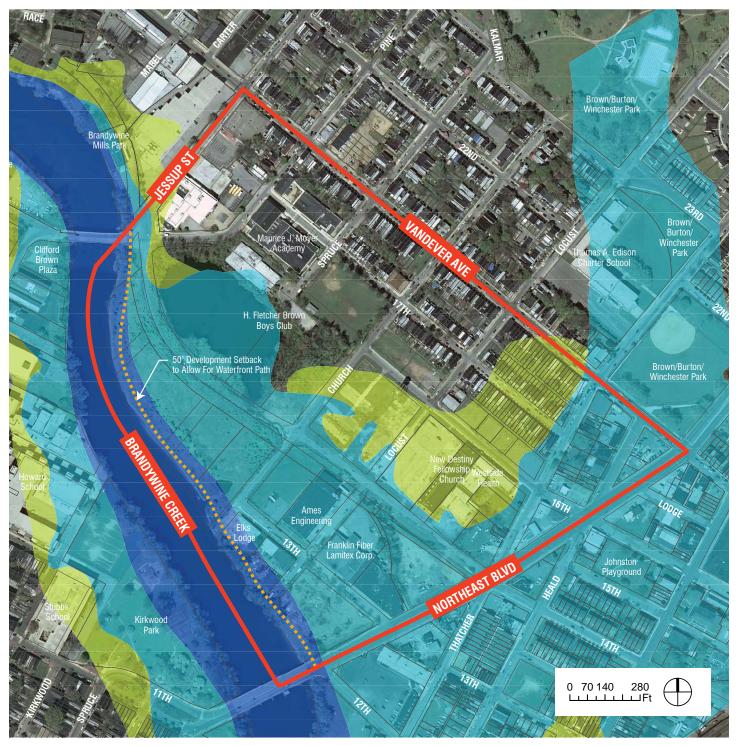
Floodplain constraints have significant implications for the character and type of development that is appropriate within the study area. Existing grade elevations of the Diamond State Salvage parcel varies from 14' in the west to 8' in the east. For the Diamond State Salvage parcel, first floor elevations of any residential building would need to be set at a minimum elevation of 16.5, 2' to 8' feet above surrounding grade. The most appropriate development would likely consist of residential development, with a first floor elevation of 18' with parking below at elevation 8'.

The first floor could either be raised on open structure (piers) or over a partially enclosed parking level. It may be advantageous to construct the residential building over partially enclosed at-grade/below-grade parking, so that berms, retaining walls, and landscaping can be used to better integrate the building into its context, as opposed to a structure elevated on piers, with open parking below.

Elevation of the New Destiny Fellowship Church parcels vary from elevation 10' in the south to elevation 18' in the north, fronting 16th Street. Thus, an at-grade occupiable first floor can be developed fronting 16th Street and parts of Church and Locust Streets, at elevation 18', with the potential for a partially enclosed basement at elevation 8'. An at-grade first floor provides the opportunity for ready accessible commercial or institutional development fronting Church and 16th Street at first floor level.

The vacant parcels on the north side of 16th Street between Church and Thatcher Street are mostly outside the 100-year floodplain. Elevations vary from 14' in the east to 24' in the west. These parcels provide the opportunity for residential development at existing grade.

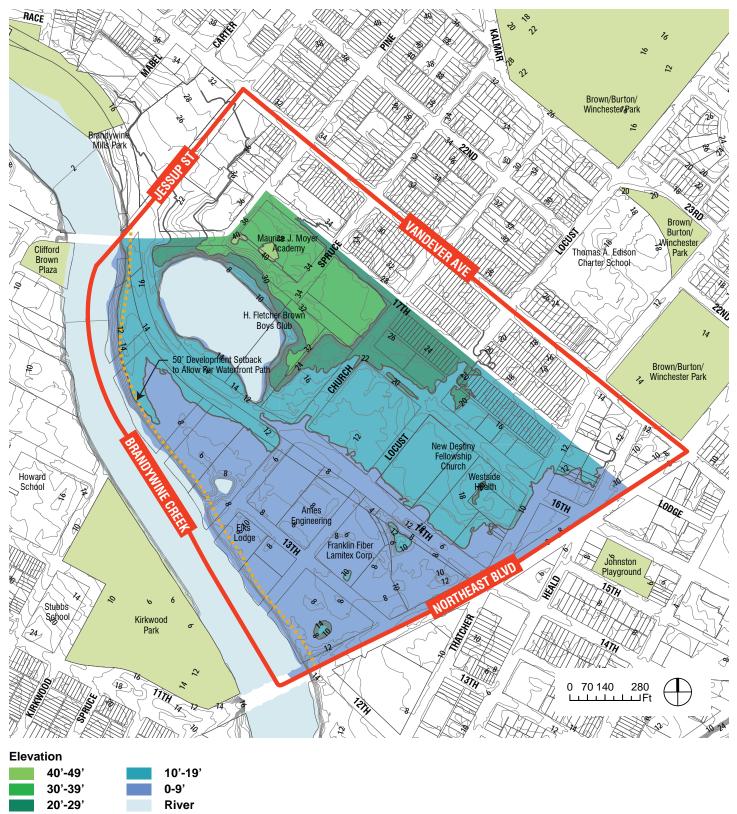
FLOODPLAIN MAP





Base Floodplain Floodway 500 Year Floodplain

TOPOGRAPHY MAP



City of Wilmington, Delaware

RECENT IMPROVEMENTS

The study area has seen several improvements and investment in the past few years. Northeast Boulevard, which serves as one of the major gateways into the area, recently received a new streetscape. A new brick raised median was installed with concrete curbs and street trees, as well as new concrete sidewalks and HC ramps.

The Maurice J. Moyer Academy at Pine and 17^{th} Street was built approximately 6 years ago. Moyer Academy is a charter school that serves students in grades 6-12. The high school building is located at the southeast corner of Pine and 17^{th} Street and the two middle school buildings are across the street on 17^{th} .

The Dunbar Elks Lodge recently relocated to a building on the Brandywine Creek at Church and 13th Streets.



Maurice J. Moyer Charter School



Elks Lodge

CURRENT INFRASTRUCTURE & DEVELOPMENT PROPOSALS

12th Street Connector/14th Street Boulevard

This roadway infrastructure project is part of the WILMAPCO Wilmington Initiatives list of capital improvements. It consists of a new roadway between Northeast Boulevard and the 16th Street Bridge using the old 12th Street Rail Spur right of way. This project would provide an alternate route in the Wilmington's Central Business District and allow and promote economic development along the Brandywine Creek.

There have been several different alignments proposed for the 12th Street Connector, the most recent of which was designed by DelDOT in 2002. This iteration includes a new roundabout at the intersection of Jessup Street and 16th Street/Pine Street with the connector extending south from the roundabout along the 14th Street Rail Spur right of way. The connector then links into Church Street and uses the 13th Street alignment and then angles across the City of Wilmington owned site until it reaches Northeast Boulevard. The connector links into the area south of Northeast Boulevard with a new roadway that angles across the Northeast Plaza Shopping Center.

To further support the 12th Street Connector project, there are proposals for a 14th Street Boulevard that would continue along the 12th Street Rail Spur right of way when the 12th Street Connector links into 13th Street. This connection will create further linkages to Northeast Boulevard and better serve the parcels east of 13th Street.

While the 12th Street Connector has been a priority project of the City's for many years, the considerable cost associated with it make it unlikely that it will become a reality until there is new development proposed for the vacant land on the Brandywine Creek.

Diamond State Salvage Site

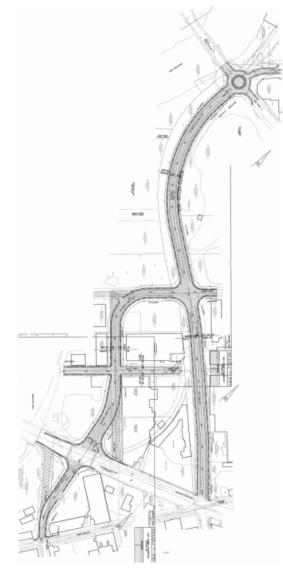
A team of architects, developers, and real estate professionals has been developing a proposal for midrise apartment buildings on the site. In this scheme, three 5 story buildings with ground floor parking would face the Brandywine Creek. Vehicular access would be provided through a new roadway on the 12th Street Rail Spur right of way. The specifics of this development scheme are still being worked out and the project team is open to suggestions for incorporating mixed use development, open space, and a waterfront trail into their development scheme. Another proposal was recently presented to the City of Wilmington's Integrated Planning Committee for developing the site into a "gated luxury affordable senior housing development". In this proposal, buildings would be 10-12 stories high in a campus setting on the waterfront. The group claimed to have the hard costs for development already raised, and a Chinese funder who would be able to absorb the soft costs of development. It was unclear from the presentation how exactly the site would be laid out and funded.

New Destiny Fellowship Church Site

Since obtaining ownership over the parcels adjacent to their existing church building, leaders of the New Destiny Fellowship Church have been actively engaged in planning efforts for vacant land in the study area, including their own parcels. The church originally discussed a vision for the area with the former City Administration that led to preliminary plans and designs. Part of the visioning process was determining what sort of services were not available in the area and would be desireable to be included in the redevelopment. These services included a supermarket, health center, local bank, gas station, convenience retail, and community services. The final vision was for a mixed use development with a Riverwalk, community center, shopping, and residential.

In order for the vision to move forward, it was recognized that the zoning would need to be changed to allow for mixed use development. As a result, the church worked with the City to convert most of the area to W-4 Waterfront zoning. They also were able to find local and federal funding to remediate their brownfield property (the old Wiley Cork Factory) so that it could be developed in the future.

At this point, the church needs the 12th Street Connector and other infrastructure improvements to be made for their development vision to move forward. They are looking for development partners to implement their ideas and are focused on community redevelopment.



DelDOT 12th Street Connector Potential Alignment

II. OPPORTUNITIES & CONSTRAINTS

OPPORTUNITIES

The study area has many positive attributes that make it an excellent location for redevelopment, both for private development and public open space. Visually and by distance, it shares a close proximity to the Central Business District of Wilmington. There are excellent views across the Brandywine Creek of downtown Wilmington, and the 16th Street bridge provides a direct connection to Center City. In addition, the study area is well served by regional highways, with easy access to both I-95 and I-495.

The study area's large amount of frontage on the Brandywine Creek makes it especially attractive to developers. In recent years, the redevelopment of former industrial urban waterfronts has been extremely successful, and residents and business owners are eager to use waterfront spaces. The study area contains many opportunities to integrate amenities such as waterfront views, trails, and open space into a redevelopment plan. Such amenities will be seen as attractive to investors and visitors.

The quarry lake on the old 16th Street Quarry development site is another excellent open space amenity. Since being remediated, it boasts clear waters and large quantities of both plant and animal wildlife. With some vegetation clearing and new trails, it could easily be an attractive recreation destination for the City. This would also be seen as an amenity to support potential residential development on the surrounding vacant parcels. Any proposal to reuse the quarry lake and surrounding land as a recreation space would need to address security and safety issues that are attached to recreating in and around a large body of water such as the quarry lake.

The study area provides an excellent opportunity for a waterfront multi-use trail between the 11th Street Bridge and the 16th Street Bridge. Negotiations would need to be initiated with the property owners at the Elks Lodge and the existing automotive repair shops along 13th Street and Locust Street to ensure continuous access to the waterfront around their properties.

The study area also contains several large development parcels, which makes land consolidation and eventual development significantly easier. In particular, the Diamond State Salvage site, which is owned by the City of Wilmington and boasts direct access to the Brandywine Creek presents a site for immediate development. These large parcels also create an opportunity for mixed use developments that require larger footprints and structured parking.



Brandywine Creek



Views of Center City from Diamond State Salvage site



Quarry Lake

CONSTRAINTS

The study area is not without constraints that will need to be taken into account in order for redevelopment to take place. Most importantly, a large portion of the study area is located in the 100 year floodplain; this includes all of the land east of the 14th Street Rail Spur right of way, most of the 16th Street Quarry site, portions of the New Destiny Fellowship Church site, and all the land south of Thatcher Street. Since no residential development can be constructed at-grade in a floodplain, any residential buildings built in the floodplain must be raised up one floor; a typical use for the first floor in such cases is parking for the building. This constraint also applies to commercial uses, which usually rely on at-grade locations for success.

The floodplain also creates a problem for new roadways in the study area. DelDOT would expect new roadways to be elevated in the floodplain, which is expensive and would cause difficulties with linking new roadways into existing ones that are currently at-grade.

Another concern for future development on the Diamond State Salvage site is that coordination with DENREC will be necessary during the redevelopment process to ensure that all environmental concerns are addressed appropriately.

The City of Wilmington and potential developers are most interested in developing higher end market rate housing throughout the study area. There is also a great deal of interest in undertaking mixed use development with commercial, residential, and office space. It is not currently desired by the City or stakeholders to develop additional affordable housing in this area.

A final concern for developing in the study area is the relatively unattractive Northeast Boulevard, which serves as one of the main access points into the area. The Boulevard is characterized by auto-oriented uses and one-story commercial establishments, both of which fall under the C-5 zoning designation at this end of the study area. These C-5 uses are inappropriate for an attractive "gateway" into a new higher end development and would need to be mitigated.



14th Street Rail Spur located in the floodplain



Combined sewer overflow areas on the Diamond State Salvage site



Unattractive Northeast Boulevard "gateway"

DEVELOPMENT POTENTIAL

Realization of the development potential of the study area will be dependent on infrastructure improvements to provide proper access to the parcels. Previous industrial development was dependent on rail access, long since abandoned, and no replacement vehicular access has since been provided to serve the vacant parcels. Completion of the 14th Street Boulevard and 12th Street Connector will be critical prerequisites to create an attractive gateway that can encourage development. Completion of the river side multi-use trail linking the 16th Street and Church Street Bridges as a public amenity will also be important.

Public Open Space

The publicly owned riverfront parcels, including the public works yard and Diamond State Salvage site offer the potential for development of additional riverfront public open space and park land, accessible from both the riverfront multi-use trail, and from the new Quarry Lake Boulevard. Such open space could take advantage of the Center City skyline views, as well as recreational opportunities provided by the river and lake. Such open space could be expanded to include public acquisition of the 16th Street Quarry Lake to create a new Quarry Lake Park.

Residential Development

Assuming completion of access improvements, parcels to the north of Church Street close to the Brandywine River, including the Diamond State Salvage site and the adjacent 16th Street Quarry site, may offer the potential for market-rate residential development, focused on the amenities of Brandywine River access, the quarry lake, and physical proximity to Center City, and views of the Center City skyline. Buildings would be oriented to maximize views of the city skyline and river, as well as the lake. The balance of new development versus amount of available public open space on publicly owned parcels will be an important conversation.

Opportunities for supporting retail services and development would be limited, because of the need to elevate the lower floor of new buildings above existing grade, to address floodplain issues. Parcels east of Church Street, bounded by Church, 16th, 14th Street and the New Destiny Church property, may offer the opportunity for more moderate income housing development, including

apartments targeted to seniors. Such development would benefit from proximity to the existing community service uses fronting 16th Street, including the Northeast/West Side Health Center, and Department of Social Services. The first floor of new buildings fronting 16th Street could provide the opportunity for additional community-related service and retail uses, as the 16th Street frontage is elevated above the floodplain. Such uses would reinforce the existing community services uses along the 16th Street Corridor. Parcels on the north side of 16th Street, between Church and Locust Street may offer the potential for moderateincome sales townhouses, possibly developed by the Wilmington Housing Partnership, to reinforce the residential rowhouse blocks on 17th Street and Vandever Avenue immediately to the north.

Commercial Development

Presently, commercial development is focused along Northeast Boulevard. The principal retail center, Northeast Plaza at 12th Street, was developed in the 1990's as a community retail center with a small supermarket, to serve the immediately surrounding residential neighborhood and the East Side. Until recently the center had been vacant for several years. The former supermarket will soon reopen as a Dollar Store.

There are scattered corner convenience stores along Vandever Avenue, including a hair salon, corner grocery (Richardson at Locust Street), liquor store (Best Liquors at Pine Street) and restaurants (Walts Flavor Crisp at Pine Street) that support the established surrounding residential neighborhood north and south of Vandever Avenue.

Industrial Uses

Historically, the study area was developed for industrial uses. Remaining industrial uses and industrial buildings are limited to the Ames Engineering Building and the Franklin Fiber Lamitex Corporation, at 13th and Locust. Both these businesses are well-maintained, thriving, clean industrial uses that provide jobs, and should be encouraged to remain within the study area. Future industrial development is unlikely, because of accessibility and floodplain issues.

DEVELOPMENT OF POTENTIAL OF SPECIFIC PARCELS

Diamond State Salvage Parcel

The Diamond State Salvage parcel is zoned W4. Diamond State Salvage parcel is 4.2 acres or 182,952 sq.ft. The W4 zoning classification permits an FAR (Floor Area Ratio) of up to 2.0 for elevator apartment buildings, and a building lot coverage ratio of up to 0.5. The height limit is 6 stories or 72 feet.

The appropriate balance of public access open space and private development will a be critically important consideration for this site, because of its public ownership and key location along the Brandywine Creek.

Based on FAR of 2.0, a residential development of up to 365,904 sq.ft could be theoretically accommodated, based on a gross area of 1,500 sq.ft. per unit (assuming 2-bedroom apartments). Thus, the site could as of right theoretically accommodate approximately 240 units. Assuming a first floor elevation of 18.00' to address floodplain issues, and a grade elevation of 8.00', buildings of up to 5 floors above parking could be accommodated. Assuming three buildings, each building could potentially accommodate 80 units. Based on 5 residential floors in each building, each floor would accommodate 16 units. Building footprint would be 24,000 sq.ft.

Based on 5 floors of residential use, building lot coverage would be 73,180 sq.ft., or 40% of the lot area, less than the 50% allowed as of right under the W4 zoning classification. Lot coverage per building would be 24,393 sq.ft. Assuming, a double-loaded corridor apartment building, with a central elevator core, a 60' deep buildings would be over 400 feet long, which would be unrealistic. It may be more appropriate to consider up to 3, 6-story buildings (with 5 floors of apartments) each with 50 apartments (10 per floor). Building footprint would be approximately 14,000 sq.ft., based on 2-bedroom apartments, with a resulting total area per building of 70,000 sq.ft. total development area would be approximately 210,000 sq.ft, resulting in on FAR of 1.15 and a lot coverage of 23%.

Opportunities for creating public access riverfront open space would be enhanced by limiting development to two buildings with 140,000 sq. ft. of development and an FAR of 80% and lot coverage of 15%. However, it may reasonable, instead of 5-story buildings above a parking deck, to consider higher 10-story buildings. Such buildings would have a smaller footprint, provide additional more marketable corner units, and better views of the center city skyline. However, a zoning variance would be required to exceed the existing 6-story, 72-feet height limit.

Assuming 2 10-story buildings, each with a residential floor footprint of 10,000 sq.ft. in 9 stories above a parking deck, total residential development area would be 180,000 sq.ft., resulting in an FAR of 10 and a lot coverage of 109%. The reduction in FAR, and reduction in lot coverage by over 50% compared to 5-story, 6-story buildings, would provide greater opportunity for creation of public access open space. If such buildings were located close to the intersection of Quarry Lake Boulevard and Church Street, the west portion of the Diamond State Salvage site can be reserved as public access riverfront open space directly adjacent the 16th Street Bridge.

The opportunity for open space could be further enhanced by limiting development to one 10story apartment building.

It may be appropriate to draft development guidelines for the parcel that limit FAR to a maximum of 1.0, and lot coverage to 15%, and require that a significant part of the remaining land be dedicated as a public riverfront park.

The 16th Street Quarry Parcel

The 16th Street Quarry site is currently zoned R3, single-family rowhouse residential. However, the site should be rezoned W4, consistent with other parcels in the study area south of 16th Street.

The 16th Street Quarry parcel fronting Church Street is approximately 1.31 acres in area, or 57,064 sq.ft. Assuming rezoning to W4, based on a FAR of 2.0 for an elevator building, total allowable development area would be 114,128 sq.ft. Most the parcel is above the base flood elevation, so 6 floors of development could be accommodated on the site. Assuming 5 residential floors with ground floor commercial, the site could accommodate 95,000 sq.ft. of residential development. Thus, the site could accommodate a total of 65^{\pm} unit, based on 1,500 sq.ft. units. Building footprint would be 19,000 sq.ft., representing a building lot coverage ratio of 33%. Assuming 2 buildings, each building would have a footprint of 8,500 sq.ft. and accommodate 32, 2-bedroom units (6 per floor).

The area of the quarry lake is approximately 140,130 sf. There is an opportunity to develop a small "Quarry Café" at the east end of the lake, which would be visible from the corner. Parking would be accommodated within the new mixed use development fronting Church Street.. The site can easily accommodate a 3,000-4,000 square foot restaurant with a deck overlooking the lake. If the lake were to remain and become part of the development scheme, it would require some clearing of vegetation to make it more visible and a new recreation path could be developed around it. There is already a fair amount of wildlife in the lake, which is likely to continue to build over time. A fountain feature could also be added at the center of the lake for visual interest.

New Destiny Fellowship Church Parcel

The New Destiny Fellowship parcels are also zoned W4. The north parcel, bounded by Church, 16th, Locust and 14th Street is 2.6 acres in area, or 113,256 sq.ft. Assuming a FAR of 2.0 (for an elevator building), the site could accommodate a development of up to 226,512 sq.ft. Based on 1,500 sq.ft. gross per unit, the site could accommodate up to 150 residential units for a residential development.

Assuming a 4-story mixed-use development, with first floor commercial, the site could accommodate a total residential area of 169,884, or 113 units at 1,500 sq.ft per unit, or 120 units, at 1,400 sq.ft. per unit. Assuming 4 separate building, each building would accommodate approximately 30, 2-bedroom units.

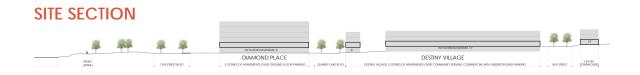
The New Destiny owned parcels on the north side of 16th Street, between Church and Thatcher, are also zoned W4. However, these relatively shallow depth parcels, which back onto rowhouses facing 17th Street, should be rezoned R3 consistent with the character of the abutting parcels.

The R3 zone permits single-family rowhouses, of up to 3 stories, and a maximum height of 40 feet. Contiguous groups of up to 10 rowhouses are permitted. A minimum front yard setback of 15' is required. A rear yard of 20' is required. Minimum lot area per unit is 1,600 sq.ft. Minimum lot width is 16'.

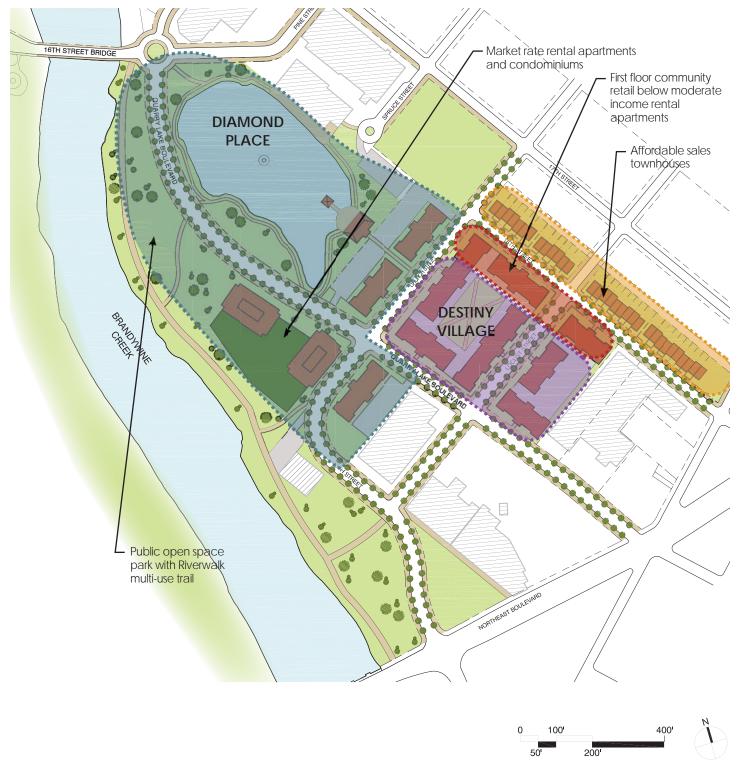
Site area of the parcel between Church and Locust is 0.58 acres or 25,277 sq.ft. Site area for the parcel between Locust and Thatcher is 0.94 acres or 41,136 sq.ft. Based on 1,600 sq.ft. lots, the site west of Locust could accommodate 15 singlefamily rowhouses, while the parcel east of Locust could accommodate 25 single-family rowhouses.

City of Wilmington Maintenance Site

The City of Wilmington site has great potential to be converted into a public open space to continue the park along the Brandywine Creek all the way down to Northeast Boulevard. This open space would include the continuation of the multi-use trail along the Creek and would create an attractive gateway into the development area at the corner of Northeast Boulevard and 13th Street.



REDEVELOPMENT PLAN ZONES

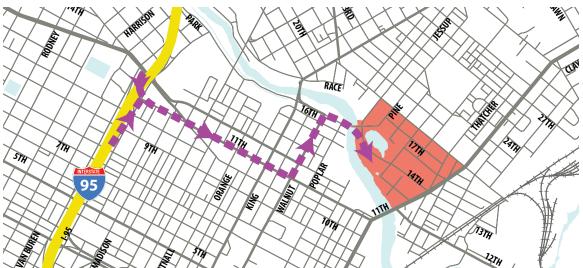


ACCESS/INFRASTRUCTURE IMPROVEMENTS

12th Street Connector/14th Street Boulevard

The 12th Street Connector has long been planned as an improved link between I-495 and Center City Wilmington. The 12th Street Connector was first conceived in the early 1980's as a link between I-495, Northeast Boulevard, and the 16th Street Bridge along the north bank of the Brandywine River. The connector is ranked No. 6 in the 2011 Wilmington Initiatives Capital Improvements and Transportation Priorities. The goal of the project is to enhance economic development opportunities along the north bank of the Brandywine.

SITE ACCESS FROM I-95



SITE ACCESS FROM I-495



BRANDYWINE RIVER/NORTHEAST WILMINGTON REDEVELOPMENT PLAN

The most recent conceptual alignment planning for the connector was completed in 2009 by Urban Engineers for the Delaware Department of Transportation. Proposed transportation improvements included a new boulevard within the widened former 14th Street railroad R.O.W. that would connect the 16th Street Bridge to Northeast Boulevard. A new 12th Street connector spur would link existing 12th Street east of Northeast Boulevard to the 14th Street Boulevard at Church Street. The 12th Street connector section within the former 14th Street railroad right-of-way was conceived as a boulevard with an 80' right-of-way that would include two 11-foot travel lanes, two, 4-foot bike lanes, two, 8'-parking lanes, two, 5' sidewalks, and seeded shoulders. The roadway section would be in accordance with East Coast Greenways standards. However, it would entail an excessive paved asphalt cartway width of 46 feet, and only very narrow sidewalks, providing little opportunity for landscaping between pedestrians and traffic.



Other sections of the connector were conceived as having a 70' right-of-way, with 2 moving lanes, 2, 8' parking lanes, 2, 5 ft. sidewalks, and seeded shoulders. Since the alignment is largely within the 100-year floodplain, the new streets were proposed to be constructed at somewhat higher grades than the surrounding parcels, to minimize roadway flooding.

To create a full intersection of 12th Street and Northeast Boulevard, the conceptual plans included realignment of 12th Street between Thatcher Street and Northeast Boulevard east of the boulevard. This would require the acquisition of a large portion of the Northeast Plaza Shopping Center parking lot, and could potentially impact the viability of the shopping center.

A roundabout was proposed at the intersection of the 12th Street Connector and the 16th Street Bridge that would create a "gateway" to Center City and serve as an important feature that brings people into the study area. A plan of the proposed alignment is shown on page 23.

It may be appropriate to reconsider the 12th Street Connector as a more conventional urban street, with a 60' right-of-way, consisting of a 30 feet cartway (two, 11' moving lanes and one 8' parking lane) and two 15' sidewalks that can accommodate street trees and landscaping. The East Coast Greenway multi-use trail would be incorporated with a multi-use trail adjacent the River's Edge. This modified alignment is included in the illustrative development plan on page 25.

There is concern that any alignment of the connector not impact the Franklin Fiber Lamitex Corporation facility, which is an important local employer.

The 16th Street bridge has very narrow sidewalks, and does not provide an attractive environment for pedestrians. The sidewalks should be widened to a minimum of 7, with two 11' wide moving lanes. Pedestrian scale lighting should be added to create a more comfortable experience for walkers.

The 12th Street Connector/14th Street Boulevard will facilitate regional automotive access into the redevelopment area by better linking the site with both I-95 and I-495.

Waterfront Trail

In keeping with the City of Wilmington's Standards for the Review of Development in the Waterfront Zoning District, the redevelopment plan proposes a continuous Riverwalk pedestrian walkway for the entire length of the Brandywine Creek waterfront between Northeast Boulevard and 16th Street. This walkway will be located within the 50 foot building setback required in the Waterfront Zoning District.

The proposed walkway is 20 feet wide and made up of hardscape material such as stamped asphalt or concrete. There should be a main walkway area that is 12 to 15 feet wide paved in one material with two transition areas on either side paved in a different material. Pedestrian amenities along the trail include lighting, benches, trash receptacles, and signage. Access points to the trail are located at the 16th Street Bridge, Northeast Boulevard just east of the 11th Street Bridge, Locust Street, Church Street, and two points along 14th Street Boulevard. "Gateway" treatments are to be incorporated at the trail access points at the 11th Street and 16th Street bridges, including signage, to direct pedestrians to the trail.

DIAMOND STATE SALVAGE SITE

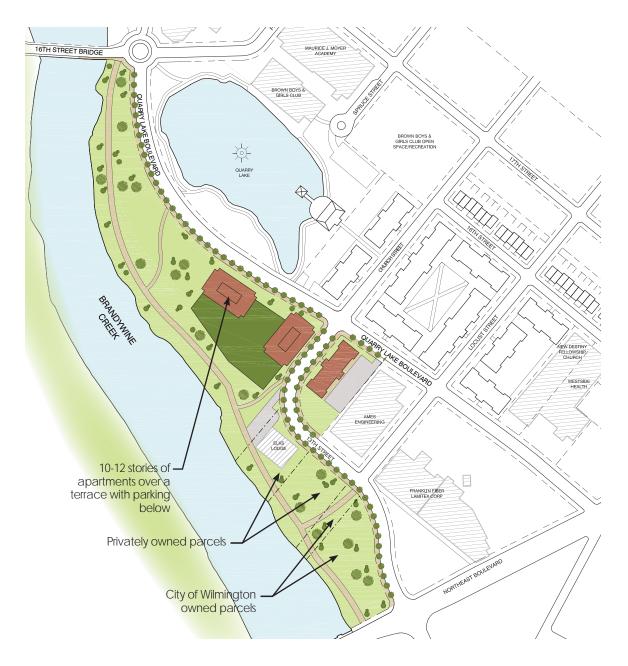
The redevelopment plan proposes three options for development on the Diamond State Salvage Site:

- 1. High-rise apartment towers,
- 2. Mid-rise apartment buildings, and
- 3. Public open space

High-Rise Apartments

This option proposes two new 10-12-story market rate apartment buildings with parking for the Diamond State Salvage site. The two towers are placed at the corner of Quarry Lake Boulevard and 13th Street and are located so as to maximize views of the Brandywine Creek, the Quarry Lake, and downtown Wilmington. The first floor base of the two towers is a green terrace, underneath which is parking (to avoid the floodplain).three buildings are placed in a line parallel to the Brandywine Creek so as to maximize views of the waterfront and downtown Wilmington. The buildings front on the new 14th Street Boulevard.

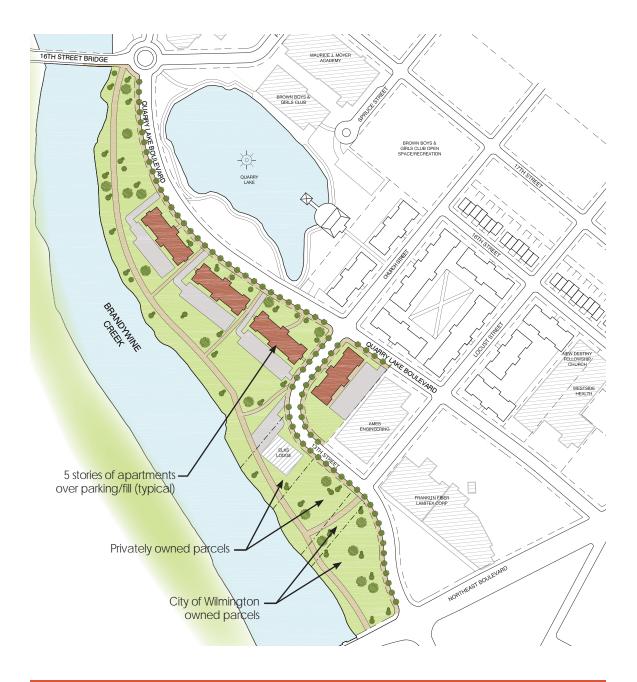
The apartment buildings have direct access to the Riverwalk pedestrian walkway that extends parallel to the Brandywine Creek.



Mid-Rise Apartments

This option proposes three new 5-story market rate apartment buildings with parking for the Diamond State Salvage site. The three buildings are placed in a line parallel to the Brandywine Creek so as to maximize views of the waterfront and downtown Wilmington. Each building is raised up one story with ground floor parking (to avoid the floodplain) with surface parking in the rear. The buildings front on the new 14th Street Boulevard.

The apartment buildings have direct access to the Riverwalk pedestrian walkway that extends parallel to the Brandywine Creek.



Public Open Space

This option preserves the entire site as a public park. The riverfront trail extends through the park from the 16th Street Bridge to Northeast Boulevard. There are multiple access paths through the park that connects Quarry Lake Boulevard and 13th Street to the trail.

This option extends the "green spine" of parks that currently lines the banks of the Brandywine Creek north of the site.



16[™] STREET QUARRY SITE

The redevelopment plan proposes that the quarry lake remain and be used as an open space and recreation amenity for the area. A new recreation path extends around the perimeter and links into the existing Brown Boys & Girls Club building. A new restaurant or "quarry cafe" with a patio and dock extending into the lake is located at the south end of the lake, which helps to anchor and serve the development across the street.

For the portion of the site fronting on Church Street, two four-story buildings over parking are proposed.



The buildings are oriented towards Church Street with surface parking located in the rear and a parking deck located below. The buildings will have a mix of uses with apartments over retail and/or office space. An additional parking lot for the Brown Boys and Girls Club is located behind the buildings.

NEW DESTINY FELLOWSHIP SITE

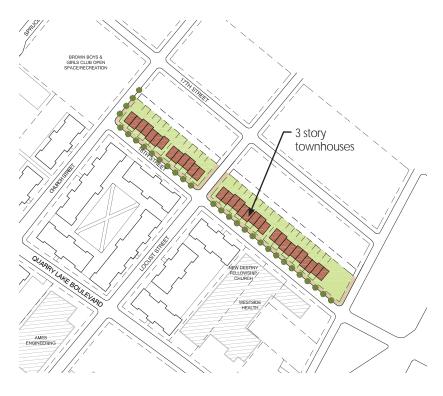
This site is envisioned as a mix of community serving services, such as local retail, banks, and a community center, with apartments on the upper floors. The parcel bound by Church Street, 16th Street, Locust Street, and 14th Street has four buildings, with each building fronting one of the streets. Each building is three floors of apartments over community commercial/ services. The courtyard space in the middle of the four buildings is open space with a parking deck below.



The parcel next to the existing church building has two three-story buildings. These buildings are proposed as flex space either for additional apartments, community services, or expansion space for the New Destiny Fellowship Church. A parking deck for the buildings is located in the rear, with the buildings fronting on Locust Street.

TOWNHOUSE PARCELS

In order to create a mix of housing types in the study area and better connect to the existing townhouse enclave on 17^{th} and Vandever Avenues, a two series of townhouses is proposed for the east side of 16th Street between Church Street and Thatcher Street. The 3-story townhouses are paired and set back between 10' and 15' from 16th Street. The parcels between Church And Locust streets are currently vacant land; however many of the parcels between Locust and Thatcher streets for parking by the New Destiny Fellowship Church and Westside Health. This parking will be relocated to the parking deck at Locust and 16th streagt. and 16th streets.

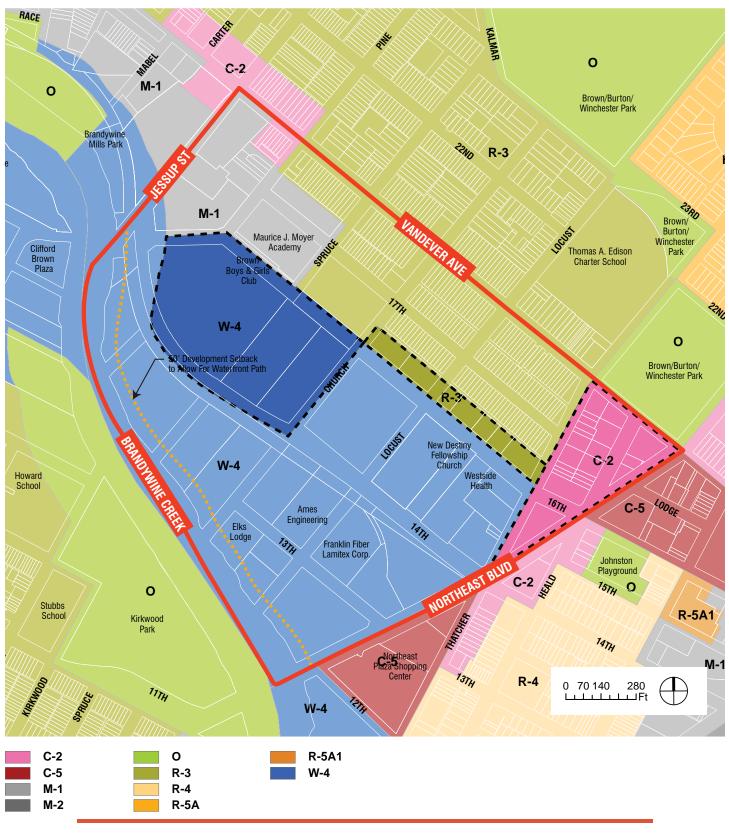


REQUIRED SUPPORTING ZONING CHANGES

In order to allow for mixed use development, it is recommended that the 16th Street Quarry and two vacant parcels south of the quarry and bordered by Church Street be rezoned as W-4. It is also recommended that the parcels on the east side of 16th Street between Church and Thatcher Street be rezoned as R-3, to allow for the proposed townhouse development on 16th Street. These zoning changes will create a continuous area of W-4 zoning west of 16th Street and a continuous area of R-3 zoning east of 16th Street.

It is also recommended that the C-5 district around Northeast Boulevard be rezoned to C-2 so as to create a more attractive gateway into the study area. The existing uses in the C-5 district (auto repair shops and single story commercial buildings) are incompatible with the type of development proposed for the study area. By rezoning to C-2, a more desired mix of community serving retail and some residential uses will be encouraged and will result in a more pedestrian friendly and attractive gateway.

RECOMMENDED ZONING CHANGES MAP

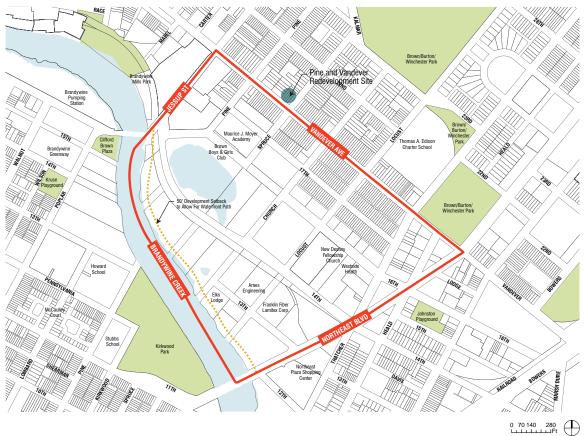


City of Wilmington, Delaware

PINE & VANDEVER REDEVELOPMENT SCHEME

Another key redevelopment site just outside the study area is the 4 parcels of land fronting Vandever Avenue at the intersection with Pine Street. The site currently has a vacant building on the corner that was home to Walt's Flavor Crisp Chicken for many years; the other two parcels are vacant.

The site has potential for residential redevelopment and can accommodate a row of four new townhomes. Each townhome is three stories high with a covered front porch, 2nd floor bay window, and a mansard roof. Parking for the townhomes is accommodated in the rear of the parcels with access off the back alley from Pine Street. The townhomes also have rear yards and patios.



PINE & VANDEVER REDEVELOPMENT LOCATION MAP



VANDEVER

PROPOSED TOWNHOMES ELEVATION



City of Wilmington, Delaware

IV. NEXT STEPS

In order to move forward with the redevelopment plan, the City will need to accomplish a series of goals. These are as follows:

- Meet with neighborhood groups and special interest groups with potential interest in the site to review potential development options and scenarios, and obtain community buy-in of a development scheme. Relevant community organizations may include Greater Brandywine Village Revitalization Inc, and Delaware Greenways.
- The conceptual design for the 12th Street Connector/14th Street Boulevard will need to be included in the City and DelDOT Capital Program, and funding will need to be acquired. The current design by Urban Engineers should be scaled down to 2 travel lanes, one in each direction, with parallel parking lanes on both sides of the street. Preliminary engineering of the roadway needs to be initiated, as well as designs for aesthetic enhancements to the 16th Street Bridge. The site's viability as a development site is directly tied to its road access infrastructure, and without significant investment from the City and State in this project, it is unlikely that developers will take a serious interest in the site.
- A development plan will need to be created the preliminary alignment of a multi-use waterfront trail between the 11th Street Bridge and the 16th Street Bridge. Access points and easements will need to be negotiated with property owners along the Brandywine Creek, including the Elks Lodge and the auto repair shops along 13th Street and Locust Street.
- It will also be important for the City to meet with key property owners, such as the Brown Boys Club and the New Destiny Fellowship Church. These meetings will ensure that the needs of all parties are being met, and that the development schemes proposed by the City are in synch with the development desired by other property owners.
- Due to the fact that the three major development sites are all former brownfield sites that were once chemically contaminated, additional environmental remediation requirements will need to be defined to ensure that the land is cleaned to the residential use standards. While some level of cleanup has already taken place on all the sites, residential development requires an additional level of remediation before it can be approved.
- A final action is to prepare a marketing brochure to solicit develop interest in publicly-owned parcels. This brochure will include illustrations of what future development could look like (renderings, site plans, etc.) as well as information about the desired mix of uses and potential development schemes. It will include basic development guidelines as to the appropriate mix of public open space and private development, and include development guidelines where they differ from those permitted as of right under existing zoning. For instance, the design guidelines for FAR and lot coverage may be significantly more restrictive than permitted by code. The guidelines may include a statute of potential city support for building heights that exceed those permitted under the zoning ordinance.

ILLUSTRATED REDEVELOPMENT PLAN

