

ENVIRONMENTAL IMPACT ASSESSMENT

GVCC REDEVELOPMENT
EAST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

(PSDC) PHILADELPHIA SUBURBAN DEVELOPMENT CORP.

Issued: May 31, 2023

Nave Newell No.: 2019-059.04

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INTRODUCTION

PROJECT SUMMARY

(PSDC) Philadelphia Suburban Corp. is proposing a redevelopment project within the Great Valley Corporate Center, located at the southwest corner of the Morehall Road (SR 0029) and Great Valley Parkway intersection in East Whiteland Township, Chester County Pennsylvania. The site is approximately 27.5 acres in size and is comprised of multiple parcels that are part of the Great Valley Corporate Center which is a 700 acre business park containing professional offices and light industrial facilities.

The site is mostly developed with commercial office and light industrial buildings, one restaurant, associated access driveways, stormwater management facilities, utilities, landscaping, and surface parking. The site also contains two East Whiteland Township historic resources. It is located in the Great Valley Revitalization Overlay District and within the O/BP District of the East Whiteland Township Zoning Map.

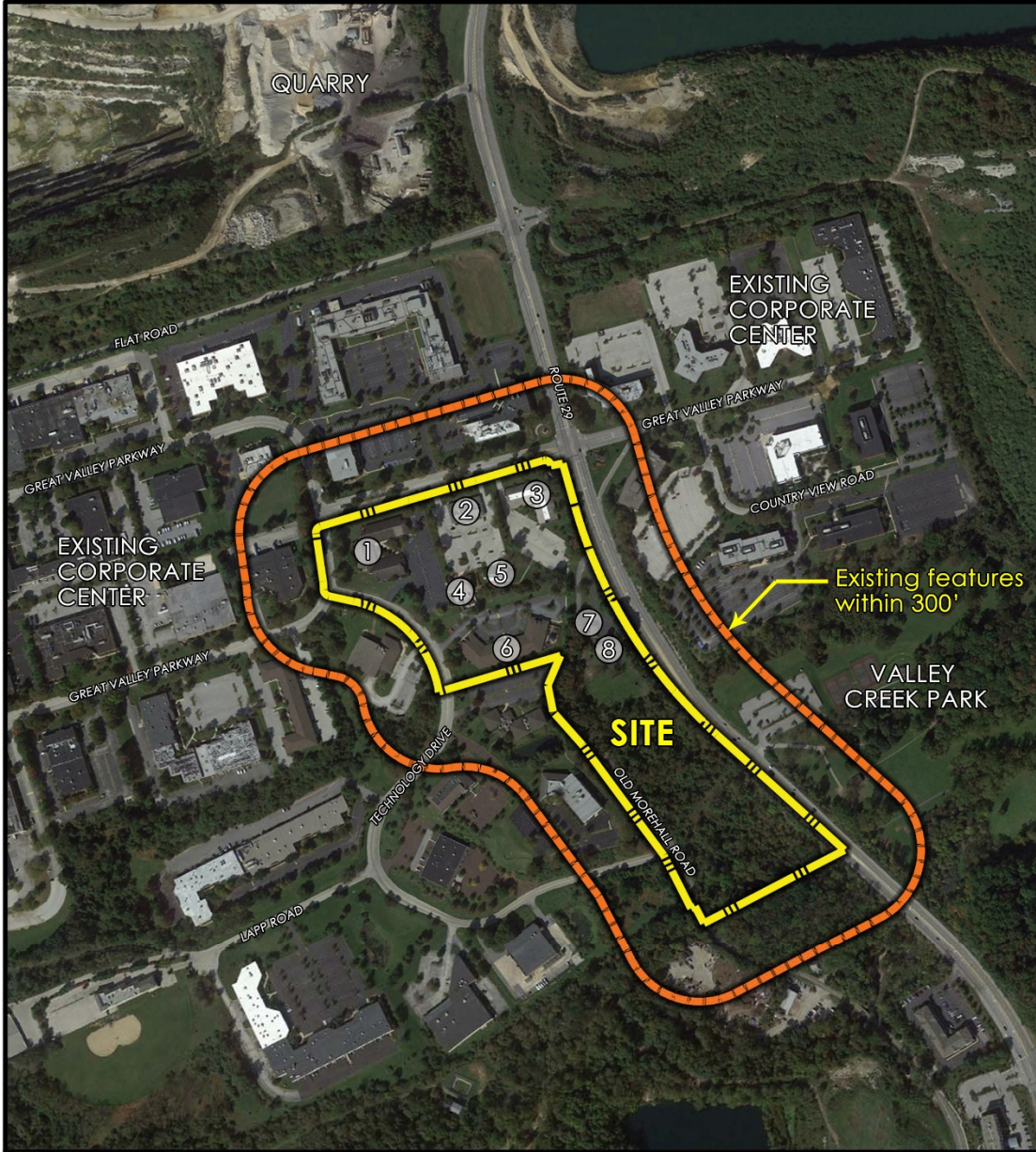
The project proposes to construct a new mixed use development within the limits of the Great Valley Revitalization Overlay District. Over two construction phases the development is anticipated to include the following: a 400 multi-family residential unit development, approximately 304,000 SF of Research and Development Building, Multi-Level Parking Garage, maintain a 33,400 SF existing office building and the integrated preservation of Fox Barn at Twenty9, an existing restaurant facility consisting of approximately 5,600 SF.


Guiding principles of the development are:

- Create an identity that invites a seamless transition between the work/live environment
- Energize the street with beautification and incorporate areas for leisure gathering and recreation
- Develop a multi-phase project that can stand-alone during each development phase
- Enhance connectivity at both the pedestrian and vehicular scale with a focus to link the existing Valley Park to the corporate center
- Be responsive to natural view-sheds of the site and its context

As part of the development, roadway improvements are proposed to Route 29 and Great Valley Parkway, Old Morehall Road as well as the construction of the Lapp Road Extension. Improvements on Route 29 include pedestrian safety upgrades at the signalized intersections at Great Valley Parkway and the Lapp Road Extension. Other associated site elements proposed include surface and parking, pedestrian walkways, utilities, stormwater management facilities, landscaping, lighting, constructing a segment of the Multi-Modal Trail, Great Valley Parkway Linear Park, and open space areas.

An aerial photograph of the site and its surroundings as well as a plan of the proposed development is shown on the following pages.



 <p>Where Ideas Get Down to Earth</p> <p>900 West Valley Road - Suite 1100 Wayne, PA 19087-1830 p: 610.265.8323 f: 610.265.4299 www.navenewell.com</p>	DRAWING NAME: AERIAL CONTEXT MAP			SHEET 1 OF 1
	PROJECT NAME: <i>Great Valley Corporate Center</i> EAST WHITELAND TWP, CHESTER COUNTY, PA			
	SCALE: NTS	DRAWN BY: BTK	PROJECT NUMBER: 2019 - 059.04	
CHK'D BY: PEL	APPROV. BY: GCN	DATE: 5/31/23		

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INVENTORY & ANALYSIS

REGIONAL CONTEXT

The subject property is located on the southwest corner of the Great Valley Parkway and Morehall Road (SR 0029) intersection in the eastern portion of East Whiteland Township, Chester County, Pennsylvania. The site is generally bounded to the west by Great Valley Parkway, Technology Drive and Old Morehall Road. The adjacent uses consist of office and research and development uses to the east and west. Undeveloped land borders the site to the south with existing corporate office to the north across Great Valley Parkway. Route 29 provides an important link for the site as it makes connections to Route 202 to the south and Interstate 76 to the north. Valley Creek Park lies just to the southeast of the site across Route 29. Valley Creek Park is a 35 acre park owned by the Township consisting of woodlands, open space, and trails along Valley Creek.

An excerpt from the Malvern, PA USGS Quadrangle is located on the following page. The USGS Quadrangle displays the context of the site with respect to surrounding roadway infrastructure, topography, and riparian features.

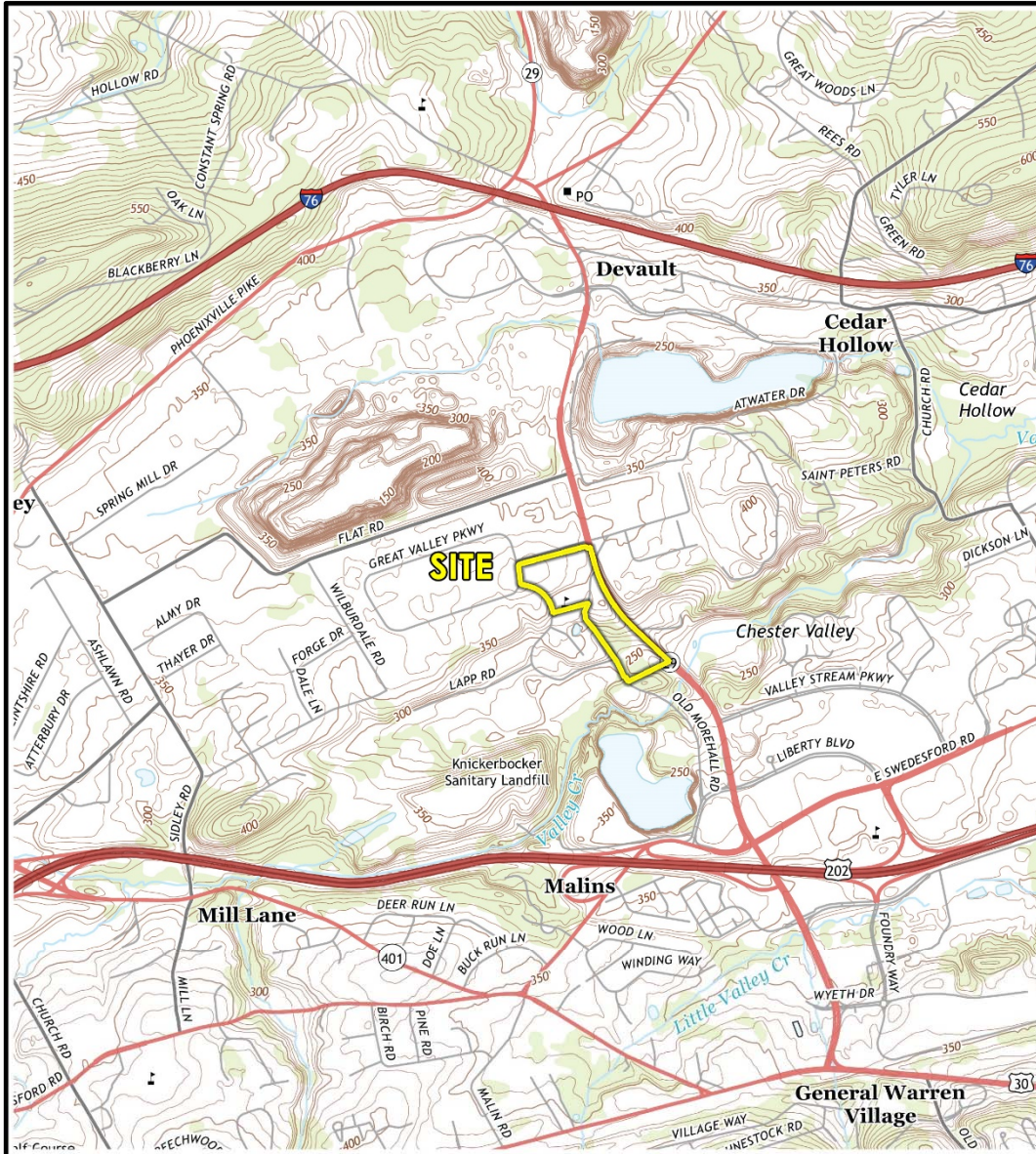
TOPOGRAPHY


The overall drainage pattern of the site area drains from the northwest corner of the site to the southeast corner of the site. The highpoint of the site is located at the northwest corner of 18 Great Valley Parkway. The low point of the site is located at the far southeastern corner of the property to the west of Route 29. The overall elevation change over the site is approximately 152 feet. The northern portion of the property south Great Valley Parkway and west Great Valley Parkway loop slopes generally drains to the southeast to Old Morehall Road with an elevation change of approximately 26 feet. The southern portion of the property located between Old Morehall Road and Route 29 is undeveloped and slopes in a north to south direction generally draining to the southeast portion of the property with an elevation change of approximately 126 feet.

Most of the site northwest of Old Morehall Road is drained by inlets and underground stormwater piping in the existing parking lot areas. The general drainage pattern after the improvements of this portion of the site will follow the pre-development conditions though a system of stormwater piping connecting to the existing structures, which ultimately drains to an existing basin. The portion of the site located southeast of Old Morehall will still maintain the similar drainage pattern of north to south; however, the proposed conditions will utilize existing storm structure in Lapp Road to discharge the treated stormwater runoff. The proposed topography will eliminate the low point at the south east portion of the site as a result regrading to provide connection to Route 29.

The East Whiteland Township Comprehensive Plan contains a Site Constraints Map (Figure 2.4.4 of the Comprehensive Plan) that has identified moderate and some severe site constraints in the southern portion of the parcel and moderate site constraints on the northern edge of the parcel. One of the constraints identified includes man-made slopes relic to past agricultural practices and the construction of Route 29. A portion of that plan showing the site conditions is shown within the Appendix of this report.

The Malvern, PA USGS Quadrangle and Aerial Context Map both show the existing topography on site.



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	PROJECT NAME: Great Valley Corporate Center EAST WHITELAND TWP, CHESTER COUNTY, PA			
	SCALE: 1" = 500'	DRAWN BY: BTK	PROJECT NUMBER: 2019 - 059.04	1 OF 1
	CHK'D BY: PEL	APPROV. BY: GCN	DATE: 5/31/23	

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GEOLOGY AND SOILS

According to the Geologic Map of Pennsylvania, Malvern Quadrangle, the site is underlain by the Elbrook Formation. According to the National Resource Conservation Service (NRCS), the soils series found onsite include:

CtC: Conestoga silt loam, 8 to 15 percent slopes

UrB: Urban Land, 0 to 8 percent slopes

PdB: Penlaw silt loam, 3 to 8 percent slopes

The majority (approx. 55%) of the soils onsite are classified as Conestoga silt loam since the site has been previously developed. Urban land is land mostly covered by streets, parking lots, buildings, and other structures of urban areas. In terms of hydrologic soil groups, urban land is not rated.

The second most prominent soil is Conestoga silt loam, 8 to 15 percent slopes. This soil type is predominantly located within the wooded portion of the site in the southeastern corner. This soil is located on hillsides and has a parent material consisting of residuum weathered from limestone. The depth to root restrictive layer is 60 to 90 inches and this soil is naturally well drained. This soil has a hydrologic soil group rating of B, which is considered to be a soil having a moderate infiltration rate when thoroughly wet.

Penlaw silt loam, 3 to 8 percent slopes makes up the remainder (6.8%) of the soil on site. The Penlaw component exists on swales and hills and has a parent material of colluvium derived from limestone, sandstone, and shale. The depth to root restrictive layer is 15 to 30 inches and the natural drainage class is somewhat poorly drained. This soil has a hydrologic soil group rating of D which is considered to be a soil having a very slow infiltration rate (high runoff potential) when thoroughly wet.

Due to the location of the site in relation to the quarry, it presents a potential for karst soils to be located throughout the site. Areas consisting of both the Conestoga silt loam and Penlaw silt loam present a somewhat limited ability to develop due to steeply sloping land and poor drainage ability. The NRCS Soils Map for the site is located on the following page. A detailed soil study will be done to determine the soil limitations on-site.

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CtC	Conestoga silt loam, 8 to 15 percent slopes	11.5	38.1%
PdB	Penlaw silt loam, 3 to 8 percent slopes	2.0	6.8%
UrB	Urban land, 0 to 8 percent slopes	16.5	55.1%
Totals for Area of Interest		30.0	100.0%



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DRAWING NAME: **NRCS SOILS MAP**

PROJECT NAME: **Great Valley Corporate Center**
EAST WHITELAND TWP, CHESTER COUNTY, PA

SCALE: NTS

DRAWN BY: BTK

PROJECT NUMBER: 2019 - 059.04

SHEET **1 OF 1**

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HYDROLOGY

The entire site lies within the Valley Creek watershed. The areas south of Great Valley Parkway drain to the south through a storm drain network and into Valley Creek. The wooded portion of the site to the south sheet flows south directly into Valley Creek which lies just south of the site. Valley Creek is classified as EV – Exceptional Value watershed in this area. Ultimately, Valley Creek drains into the Delaware Bay Basin via the Schuylkill River.

The property falls within Zone “X” areas determined to be outside the 0.2% annual chance floodplain as depicted on the Federal Emergency Management Agency Flood Insurance Rate Map, Map No. 4202029C0160G and No. 42029C0105G, revised September 29, 2017.

Because there are no watercourses on site, direct impacts to the Valley Creek floodplain are not anticipated. Appropriate erosion and sedimentation controls will be designed and implemented to ensure there are no adverse impacts to the downstream hydrology receiving stormwater from the site. The erosion and sedimentation controls and stormwater management BMP’s planned for the development are discussed in detail within the Mitigation Measures section in Chapter 4 of this report.

VEGETATION

Generally, the site is located within a developed area and the majority of the vegetation has been planted as part of the development of the corporate center. Trees exist along roadways, within parking areas, and around existing office buildings. The southern portion of the site between Old Morehall Road and Route 29 contains man-made steep slopes and is vegetated with hedgerows in decline due to ash bore, volunteer old field successional invasive scrub dominates the understory. This area is approximately 14 acres in size.

The landscaping proposed for the project will consist of urban-tolerant street, shade and lawn trees planted along roadways, parking areas, adjacent to surface stormwater management facilities and open spaces, where practical.

MAN-MADE FEATURES

The Master Plan area until recently contained 6 office buildings taking access from either Great Valley Parkway, Old Morehall Road or Technology Drive. The Fox Barn at Twenty9 shares common driveways with 16 Great Valley Parkway property while the remaining two office buildings shared a common access from Old Morehall Road. Other existing man-made structures include the Fox Barn at Twenty9, two remaining historic resources, with parking areas and access drive from Great Valley Parkway.

Over the years, construction of these improvements, including Route 29 and prior agricultural practices, has created the slopes delineated on the site.

HISTORIC RESOURCES

The East Whiteland Township Historical Commission spearheads the Township's efforts to identify and preserve historic resources within the community. The proposed redevelopment site contains two structures identified by the Historic Resources list of the Township's Comprehensive Plan.

These structures include the Joseph Kurtz House located at 12 Great Valley Parkway and the Estate of Abraham Felters Barn located at 16 Great Valley Parkway. The Joseph Kurtz House was constructed in the year 1900 while the Estate of Abraham Felters Barn was constructed around 1883. These structures lie adjacent to each other, with the existing restaurant, Fox Barn at Twenty9, located within the footprint of the Felters Barn. The structures are relatively hidden from view from the adjacent roadways due to the development and topography around them. The barn has been heavily modified and altered over the years. These historical structures will remain as part of the redevelopment.

VISUAL ANALYSIS

Views into Site

When approaching the site from the south along Route 29, existing topography and vegetation buffer the views from the east into the site until the viewpoint approaches the intersection of Route 29 and Great Valley Parkway.

Views into the site from the north (Great Valley Parkway) are filtered due to vegetation between the roadway and the site in this area. Additionally, relatively flat topography in this area helps provide good views of the property where vegetation does not interfere.

Views from the West (Great Valley Parkway) are generally open with the exception of some filtering due to the existing trees and landscaping along the roadway. The intersection of Great Valley Parkway and Technology Drive represents one of the highest points of the site. Views into the site are good from this location and there are also good extended views of the hillsides in the horizon beyond the site to the southwest.

Technology Drive also borders the site to the west and slopes relatively steeply to the south. Views into the site are good from this roadway with the exception of some filtering from existing landscape and berms.

Views out of the Site

Views out of the site are the best near the intersection of Great Valley Parkway and Technology Drive. This area represents the highest point of the property and views of the hillsides in the horizon to the south can be seen from this location. The views are somewhat filtered due to the existing landscaping and structures within the corporate center. Generally, views from the interior of the corporate center to Route 29 are limited due to the existing buildings, vegetation and berms.

Photographs that illustrate the site's character and appearance as well as their corresponding location and direction of view are shown on the Photo Location Map, found in the Appendix of this report.

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COMMUNITY SERVICES & FACILITIES NEEDS ANALYSIS

With a daytime population of approximately 23,000 due to business commuters and visitors, community services in East Whiteland Township are critical to maintaining the Township's strong economic base. The Township has a wide range of community facilities, many of which are located within close proximity to the redevelopment site. Schools, libraries, emergency services, and other community facilities are well represented and will serve the needs of both East Whiteland residents and those who travel to the Township for employment and other reasons.

TOWNSHIP ADMINISTRATION FACILITIES

The property is located in East Whiteland Township, Chester County, Pennsylvania. East Whiteland has a population of approximately 14,000 people according to the 2020 census. Home to the Great Valley Corporate Center and the headquarters of several large national and international companies, the Township's population grows to over 23,000 when commuters travel to their places of employment within the Township. East Whiteland Township is located approximately 20 miles west of the City of Philadelphia and encompasses an area of 11.0 square miles. The Township Municipal Building is located at 209 East Conestoga Road in Frazer, Pennsylvania, approximately three miles southwest of the proposed development site.

EDUCATIONAL FACILITIES

The site is located within the Great Valley School District which provides education to children of East Whiteland Township, Willistown Township, Charlestown Township, and Malvern Borough. Public schools within five miles of the site include the Kathryn D. Markley Elementary School, Charleston Elementary School, Great Valley Middle School, and Great Valley High School. Higher educational institutions also in the vicinity include Immaculata College, West Chester University and Penn State University, Great Valley Campus which approximately one mile to the south on Swedesford Road.

While the proposed development includes residential apartment units, based upon both trends and demographic, a significant increase in the school-age population to the area schools is not anticipated; however, Great Valley School District will benefit from the tax revenues generated by the proposed development.

LIBRARY FACILITIES

The Township has three libraries that serve the residents and visitors of East Whiteland Township. The Chester County Library, Malvern Library and Paoli Library are all within seven miles of the site. It is anticipated that these facilities will be more than adequate to serve the needs of visitors and residents within the proposed development. It is not anticipated that the development will create any increase in operational costs of the local libraries.

HEALTHCARE FACILITIES

The Paoli Memorial Hospital is the nearest hospital facility, located on West Lancaster Avenue, less than four miles from the site. Paoli Memorial Hospital is a 231-bed hospital that offers level II trauma care with 24/7 staffing in its emergency room. The Chester County Memorial Hospital and Phoenixville Hospital are also within a ten mile radius of the site. Locations of these hospitals are noted on the Community Services and Facilities Map.

Area Hospitals:

- Paoli Memorial Hospital (3.5 miles from site)
255 W. Lancaster Avenue, Paoli, PA 19301
- Phoenixville Hospital (5 miles from site)
140 Nutt Road, Phoenixville, PA 19460
- Chester County Memorial Hospital (10 miles from site)
701 E. Marshall Street, West Chester, PA 19380

It is anticipated that these three existing medical facilities all located within a 10 mile radius will be adequate to service the proposed mixed use development. Paoli Memorial Hospital represents the County's only trauma care facility.

EMERGENCY SERVICES

Fire Protection

The East Whiteland Volunteer Fire Association is the primary fire company that would service the site in an emergency. The company operates out of a station at 205 Conestoga Road in Malvern, PA which is approximately 2.7 miles from the site. The East Whiteland Volunteer Fire Association provides fire protection to the entire Township. The East Whiteland Volunteer Fire Association is supported by four other area fire companies when required. These additional fire companies include:

- West Whiteland Fire Company
- Malvern Fire Company
- Paoli Fire Company
- Berwyn Fire Company

A public water system, owned by Aqua America services the existing site, and provides adequate fire hydrants and water pressure for fire suppression. The site's proximity to fire stations and on-site fire hydrants, along with modern building codes, should reduce the danger to both life and property.

Police Department

The East Whiteland Police Department services the Township with police protection. Services and protection are provided on a 24-hour basis, focusing on the importance of community awareness. The police also work with local children in a Drug Abuse Resistance Education (DARE) Program. The Department is based out of the East Whiteland Township Municipal Building at 209 Conestoga Road, approximately 2.8 miles from the site.

Emergency Medical Services

The East Whiteland Volunteer Fire Association provides EMS services to the proposed project location. The company operates out of a station at 205 Conestoga Road in Malvern, PA which is approximately 2.7 miles from the site. The firefighters and emergency medical technicians that serve East Whiteland Township are state certified. The company has two EMS officers and responded to over 700 emergency medical incidents in 2015.

Future Need Sufficiency

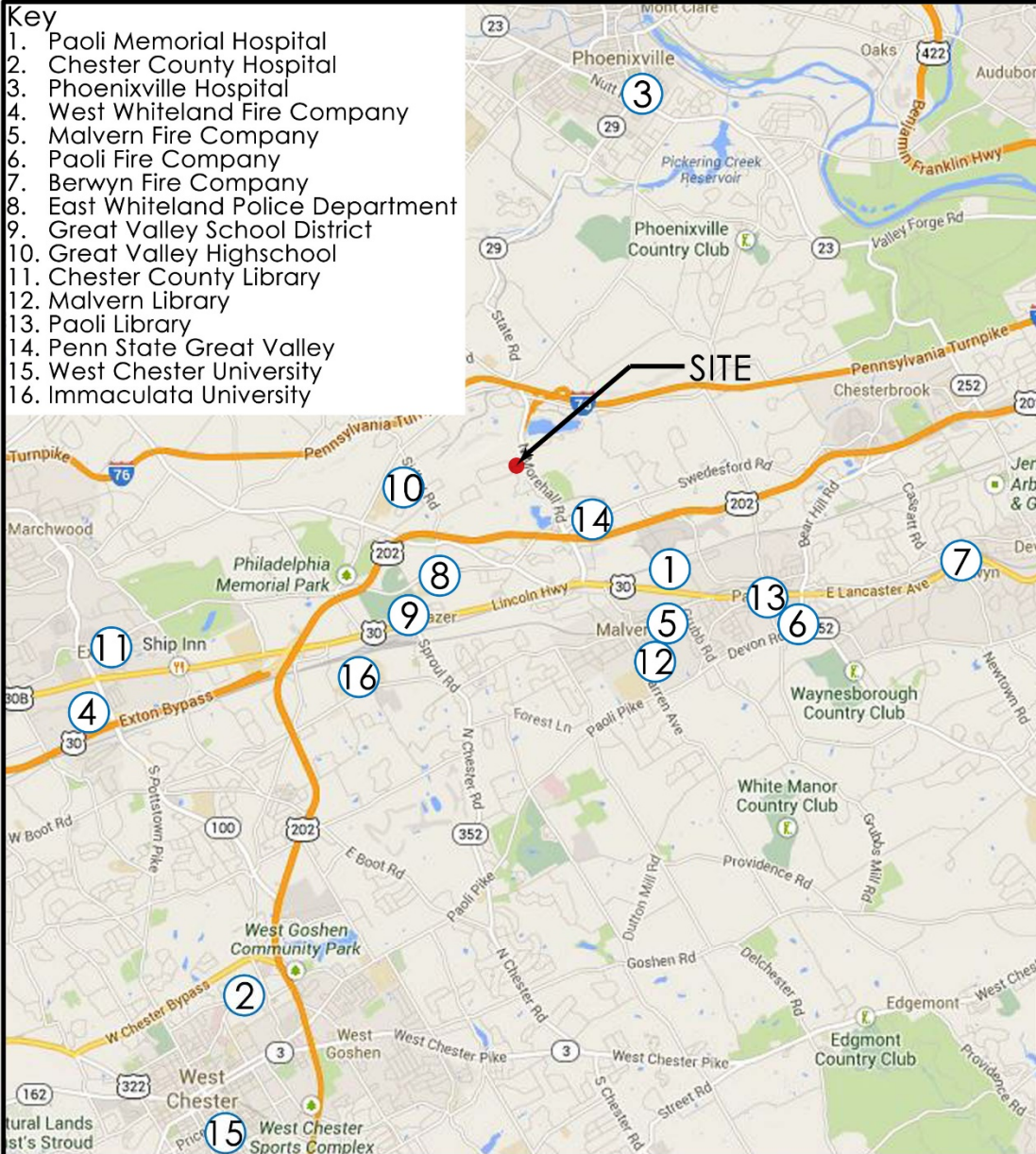
The redevelopment site falls within the service area of all of East Whiteland Township's emergency services. Due to the expansion of an existing, similar use of approximately the same size, it is not anticipated that this project will produce a significant change or increase in the demand for emergency services. The proposed development however, will include the addition of R&D Office/Laboratory, multi-family residential units and public spaces that that may produce slightly more policing and emergency service demands than the previously existing office buildings. It is anticipated that the Township will benefit from the tax revenues generated by the proposed development, which will exceed any increase in operational costs for emergency services.


LOCATION OF EXISTING COMMUNITY FACILITIES

A key map of Community Services and Facilities that will be needed to service the site and are located within a ten-mile radius is shown on the following page.

Key

1. Paoli Memorial Hospital
2. Chester County Hospital
3. Phoenixville Hospital
4. West Whiteland Fire Company
5. Malvern Fire Company
6. Paoli Fire Company
7. Berwyn Fire Company
8. East Whiteland Police Department
9. Great Valley School District
10. Great Valley Highschool
11. Chester County Library
12. Malvern Library
13. Paoli Library
14. Penn State Great Valley
15. West Chester University
16. Immaculata University



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	PROJECT NAME: Great Valley Corporate Center EAST WHITELAND TWP, CHESTER COUNTY, PA		
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4 NATURAL RESOURCE IMPACTS

WATER AND GROUND WATER

In the existing condition, the portion of the site south of Great Valley Parkway West drains to the south through a storm conveyance network and through detention basins, eventually discharging into Valley Creek.

In order to meet the East Whiteland Township Stormwater Management Ordinance and Valley Creek Act 167 Plan requirements, this project will propose stormwater management facilities to reduce the rate of runoff and improve water quality for those areas disturbed by construction. Anticipated stormwater improvements include modifications to existing drainage systems at Great Valley Parkway parcels and Lapp Road, as well as on-site above ground and subsurface Managed Release Concept (MRC) Systems.

Due to the underlying karst soils, stormwater infiltration will not be viable. An approved DEP alternative, managed release, will be used to meet the state and township water quality requirements in lieu of infiltration. Geotechnical testing will be done throughout the site to validate the used for MRC Systems. Public water service will be utilized to service the site and for this reason no draw-down to the underlying groundwater table is anticipated for water usage.

SANITARY SEWER

The sewer system that services the site is a tributary to the Valley Forge Sewer Authority (VFSA) treatment plant. VFSA owns and operates 90 miles of collection lines, 9 pump stations and a regional treatment plant, serving in nine Chester County municipalities.

The area of the project south of Great Valley Parkway West flows to the south through a gravity conveyance system, eventually discharging into the Lapp Road Pump Station. From the Lapp Road Pump Station, flow is pumped to the south and east, discharging to a gravity main in Valley Stream Parkway. From this discharge, sewer flows south via a gravity main, beneath Route 202 and eventually into the Matthews Road trunk line. From there, the sewer flows along the same path as noted above, to the treatment plant.

Aqua recently purchased the Township's sanitary sewer facilities; as a result, PSDC and the project team are initiating discussion with Aqua on what, if any, sanitary sewer upgrades may be necessary as the Master Plan advances.

WASTE CONTROL

Solid waste, including refuse, office waste, and recycling will be stored in dumpsters until removed by a licensed waste disposal service. There are five registered trash haulers in the Township and the owner of the proposed development will contract with one of these companies.

It is not anticipated that the proposed development will create a significant increase in waste. The development will contain adequate trash storage for the proposed uses and all dumpsters on site will be screened by an enclosure and landscaping as appropriate.

MITIGATION MEASURES

Utility Infrastructure & Demand

Sewer, water, electric, telecommunication services, solid waste removal and stormwater management facilities are needed for the future patrons of this development.

Aqua America and PECO Energy currently service the site with water, electric, and natural gas services. Water supply will continue to be provided by Aqua and PECO will continue to provide the electric and natural gas services. Overhead electric transmission lines exist along Route 29. It is anticipated that electric connections to the proposed development will be made underground where feasible.

Due to the development of parcels tributary to the Lapp Road Pump Stations, potential upgrades may need to be done to accommodate project flow.

A portion of the gravity system from Valley Stream Parkway to Swedesford Road may need to be replaced with a larger size pipe though this improvement may have been assigned to others.

No capacity issues are anticipated for the conveyance system through Tredyffrin Township or at the treatment plant.

An Act 537 Planning Module Approval will be sought as part of the entitlement process for this project.

Erosion & Sedimentation Controls

Erosion and sedimentation controls will be designed in accordance with Township, Chester County Conservation District and PADEP requirements and will accommodate the proposed site improvements. Given that the development site is located within an Exceptional Value watershed and the anticipated earth disturbance associated with the proposed site improvements will exceed one acre, an Individual National Pollutant Discharge Elimination System (NPDES) permit will be sought in conjunction with the erosion and sedimentation control permitting. Anticipated controls will include silt sock, sediment basins/traps, inlet protection, concrete washouts, topsoil stockpiles, rock construction entrances, and temporary/permanent seeding of disturbed areas.

Water Quality Control

This project will propose new stormwater management facilities to reduce the rate of stormwater runoff and improve water quality throughout the site. Water quality can be negatively affected by runoff from roadways, parking areas and roof drains. In the existing condition, portions of the site are covered with impervious paving and the quality of the runoff generated by these surfaces is not known.

Under proposed conditions, the quality of stormwater will be improved, as new stormwater best management practices such as Manage Release Concept (MRC) rain gardens and subsurface systems will be utilized to manage and treat existing and proposed stormwater runoff.

Proper execution of the Erosion and Sediment Control Plan will be required to minimize impacts on water quality during construction. Newly graded areas will be seeded or mulched to minimize erosion and disturbed areas will be watered to reduce dust. Furthermore, physical erosion controls such as inlet protection, silt sock, rock construction entrances, and sediment basins/traps, will be provided to mitigate erosive construction conditions.

Other stormwater related items will also be implemented to protect water quality, including inlet protection and silt sock in order to mitigate the threat of groundwater pollution. During construction, maintenance of erosion and sediment controls will further minimize impacts to groundwater and runoff.

Because the proposed facilities will reduce stormwater runoff rates there are no flooding issues or other negative impacts anticipated to the existing downstream stormwater conveyance systems that this site will connect to. Additionally, the improved water quality measures provided onsite will not negatively affect the quality of the adjacent ground water and surface waters nearby.

The short term effects of dust and sedimentation associated with construction will be offset through the implementation and maintenance of soil erosion and sediment control devices and the limited duration of construction activities.

Air Quality Control

Expected air emissions on the site may originate from the heating systems and vehicle traffic. The emissions from the heating systems will be minimized by the implementation of new, modern equipment that will comply with current federal and state emissions standards. Vehicle traffic, including employee automobiles and delivery trucks, typically generate carbon dioxide, carbon monoxide, nitrogen oxide, sulfur oxide, and other emissions, which are also regulated by federal and state clean air standards.

Construction activities will produce dust, which will be controlled via proper execution of an Erosion and Sedimentation Control Plan. Additionally, there is always air pollution from automobile exhaust, debris burning, home fireplaces, etc. It is also important to note that the air quality in the location of this development is likely not pure, given the site's proximity to Route 29 and the Pennsylvania Turnpike, which produces a significant amount of automobile exhaust.

Wetlands Protection Measures

No wetlands are present onsite or adjacent to any proposed disturbance related to construction activities.

Noise Control

Noise pollution associated with construction activities will be a short term burden to the surrounding community and all construction activities will adhere to Township mandated start and end times. There are no residential use adjacent to the development areas. After construction is complete, noise will mainly be attributed to vehicles entering and exiting the site. Any increase in noise is expected to be minimal, due to the site's location and proximity to Route 29, Pennsylvania Turnpike Interchange and Route 202.

Re-grading

The site will be re-graded to accommodate paving and building construction. During construction, the controls outlined in the Erosion and Sedimentation Control Plan will mitigate any water and air pollution from the re-grading process.

Screening & Buffering

The site as previously noted is developed resulting in a man-made environment with installed landscaping and successional landscaping on the southeastern corner of the site. The primary landscape is lawn with a mix of deciduous trees planted along the site's perimeter and within the existing parking lot.

With the redevelopment of the site to be mixed use the new buildings will be more visible on the approach along northbound Morehall Road. From the southbound approach to the site from Morehall Road the proposed vegetative buffers and landscaping will soften and filter the views into the site. Street trees will be provided along the road frontages of Great Valley Parkway to soften and filter views from the street.

The adjacent uses that include other portions of the corporate center are compatible with the proposed development; therefore, no perimeter screen buffering is needed. Within the development screen buffering will be provided as needed to screen certain site features including but not limited to parking areas, loading zones, trash enclosures and equipment associated with the proposed buildings.

5

RECREATION AREAS & FACILITIES

EXISTING RECREATION FACILITIES

East Whiteland Township has an extensive park and recreation system that serve both passive and active recreational needs. The Township park system includes four community parks, three neighborhood parks, two tot lots, one nature preserve, and nine open space areas. The facility closest to the proposed mixed use development is Valley Creek Park, located just south of the project on the eastern side of Route 29. Valley Creek Park provides 35 acres of woodlands, open space and natural trails along the Valley Creek. The park also includes four tennis courts, a playground, a pavilion, restroom facilities, and an amphitheater.

Access to the Chester Valley Trail which links Exton, Great Valley, and King of Prussia is approximately one mile to the south at the intersection of Route 29 and Mathews Road. The trail provides recreational opportunities such as walking, jogging, biking, and inline skating.

Other nearby recreation facilities include Liberty Property Fields and Siemens Fields. Liberty Property Fields are located just 900 feet to the west along Lapp Road. This private facility owned by Liberty Property Trust is part of the Great Valley Corporate Center and includes two baseball/softball fields. The Siemens Fields are owned by Siemens Corporation and are located adjacent to their office building on Valley Stream Parkway, approximately one half mile from the project site.

Other types of recreation facilities that may be used by the employees and residents of the proposed development include health clubs and golf clubs. The Great Valley YMCA is located on Liberty Boulevard less than one mile to the south. The Chester Valley Golf Club is a private facility with an 18-hole golf course, pool, and a tennis facility located on Swedesford Road and is approximately 3 miles from the site.

The locations of all the existing park and recreation facilities in the Township are shown on the recreation facility map located on the following page. It is not anticipated that the development will create a significant increase in demand for these local recreation facilities and that the existing facilities will have adequate capacity to serve the needs of the development.




PROPOSED RECREATION FACILITIES TO BE PROVIDED

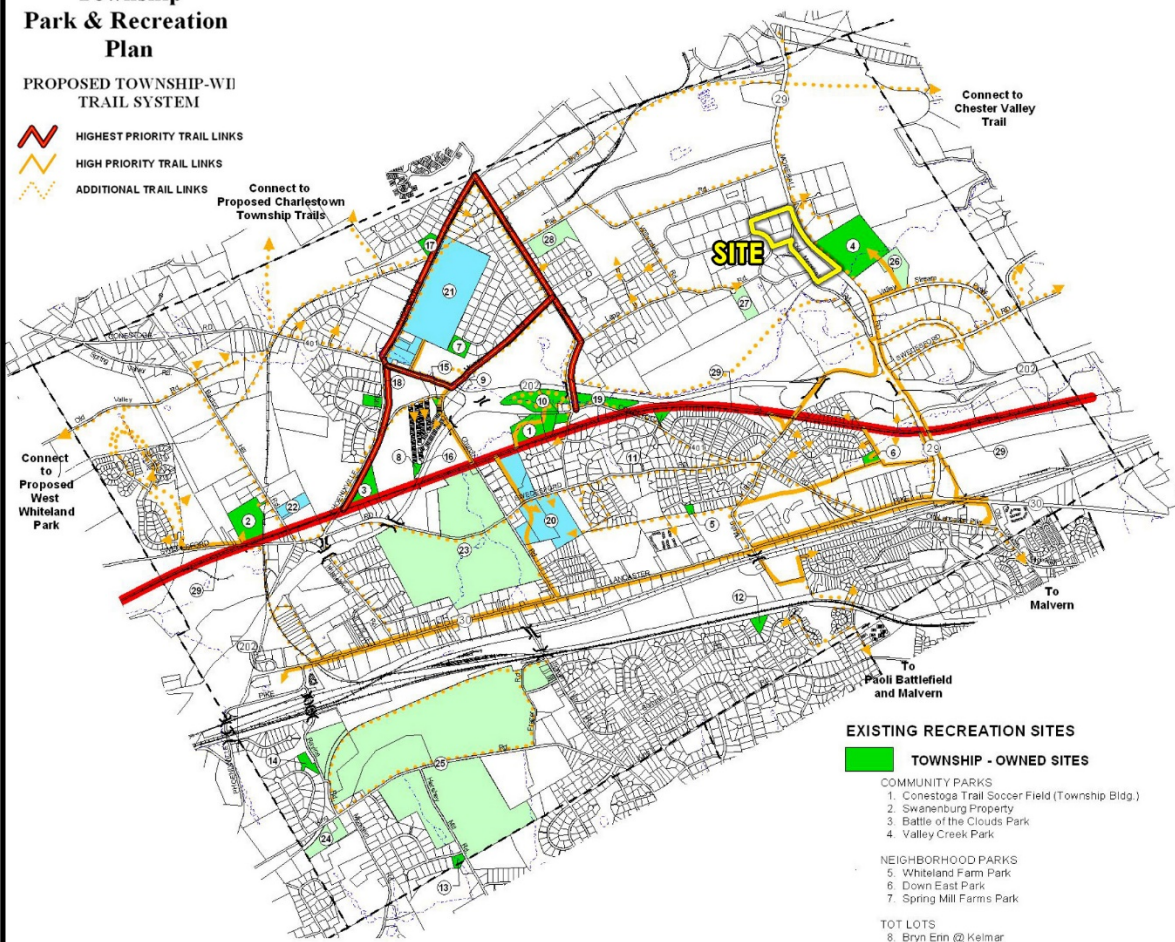
The proposed development will include green and open space with interconnected pedestrian walkways, so there will be many opportunities for passive recreation such as walking, jogging, dog walking, biking, and other outdoor activities. A proposed linear park will provide different gathering areas and site furnishings for passive recreation. The proposed multi-modal trail will aid in connectivity and provide active recreation for pedestrians. Fitness centers, swimming pools, sunning decks/patios, grill-stations, fire-pits, and indoor clubhouses will be provided in order to meet the on-site leisure and recreational needs of residents. These facilities will be privately owned and maintained for use by residents and employees of the development.

Additionally, due to the site's proximity to the existing Valley Creek Park, recreational opportunities such as tennis, baseball, softball, hiking, fishing, and a playground in close proximity to the site for those residents looking for other additional recreational options.

East Whiteland Township Park & Recreation Plan

PROPOSED TOWNSHIP-WIDE TRAIL SYSTEM

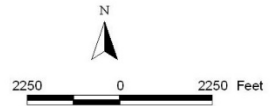
-  HIGHEST PRIORITY TRAIL LINKS
-  HIGH PRIORITY TRAIL LINKS
-  ADDITIONAL TRAIL LINKS




EXISTING RECREATION SITES

-  TOWNSHIP - OWNED SITES
 - COMMUNITY PARKS
 - 1. Conestoga Trail Soccer Field (Township Bldg.)
 - 2. Swansburg Property
 - 3. Battle of the Clouds Park
 - 4. Valley Creek Park
 - NEIGHBORHOOD PARKS
 - 5. Whiteland Farm Park
 - 6. Down East Park
 - 7. Spring Mill Farms Park
 - TOT LOTS
 - 8. Bryn Erin @ Kelmar
 - 9. Bryn Erin @ Markel
 - NATURE PRESERVES
 - 10. Ecology Park
 - OPEN SPACES
 - 11. Chester Valley Knoll
 - 12. Oakhill Circle
 - 13. Brooklands
 - 14. Glenloch Way
 - 15. Bryn Erin Moores Road Basin
 - 16. Bryn Erin Kelmar Avenue Basin
 - 17. Aston Woods
 - 18. Wyckfield Subdivision
 - 19. Rubino Property
-  PUBLIC SCHOOL SITES
 - 20. K.D. Markley Elementary School
 - 21. Great Valley High School and Middle School
 - 22. School-Owned Property

-  MAJOR PRIVATE SITES
 - 23. Chester Valley Golf Club
 - 24. Great Valley Little League Field
 - 25. Immaculata College/Convent
 - 26. Siemens Fields
 - 27. Liberty Property Fields
 - 28. Pickford Run (leased by School District)
-  COUNTY - OWNED SITES
 - 29. Chester Valley Trail



Source: East Whiteland Township and Urban Research & Development Corporation.

 <p>Where Ideas Get Down to Earth</p> <p>900 West Valley Road • Suite 1100 Wayne, PA 19087-1830 p: 610.265.8323 f: 610.265.4299 www.navenewell.com</p>	DRAWING NAME: RECREATION FACILITY LOCATION MAP		
	PROJECT NAME: Great Valley Corporate Center EAST WHITELAND TWP, CHESTER COUNTY, PA		
SCALE: NTS	DRAWN BY: BTK	PROJECT NUMBER: 2019 - 059.04	SHEET
CHK'D BY: PEL	APPROV. BY: GCN	DATE: 5/31/23	1 OF 1

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REFERENCES:

Chester County Planning Commission. Chester County Geology. July 1994.

Chester County, 1996, Landscapes Managing Change in Chester County, 1996-2020, Comprehensive Plan Policy Element.

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Chester County Water Resources Authority, Valley Creek Watershed Technical Compendium, July 2004.

East Whiteland Township. <http://www.eastwhiteland.org/>.

Norman Day Associates. East Whiteland Township Comprehensive Plan, December 18, 2001.

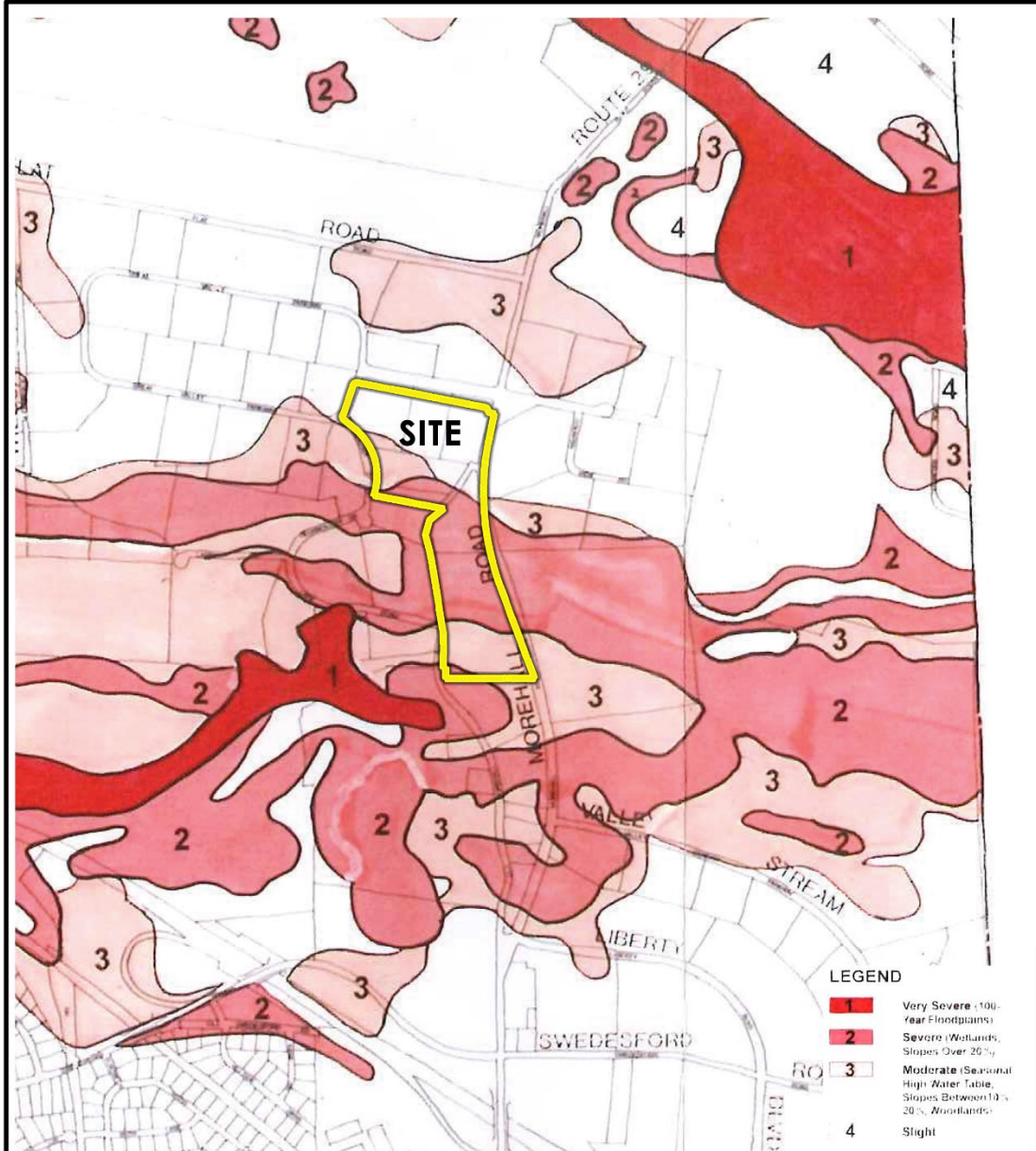
Sloto, R.A., 1994, Chester County Water Resources Authority, Geology, Hydrology, and Groundwater Quality of Chester County, Water Resource Report 2, West Chester.

U.S. Department of Agriculture, 1963 (Revised 1972). Soil Conservation Service (sic NRCS), Soil Survey of Delaware and Chester Counties.

The Pennsylvania Department of Conservation and Natural Resources, August 2006, <http://www.dcnr.state.pa.us/>

6

APPENDIX



DRAWING NAME: **SITE CONSTRAINTS MAP**

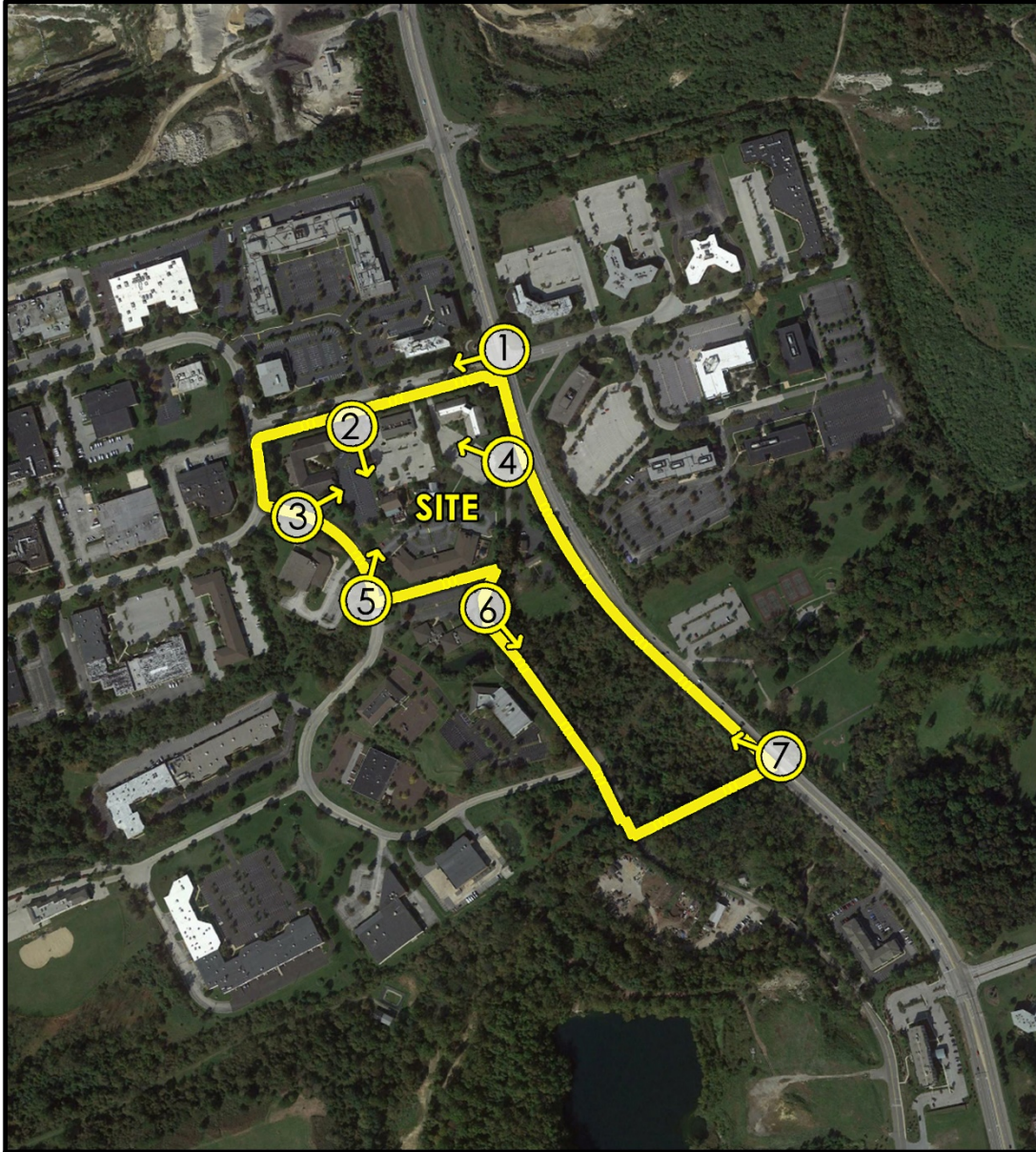
PROJECT NAME: **Great Valley Corporate Center**
EAST WHITELAND TWP, CHESTER COUNTY, PA


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 <p>900 West Valley Road • Suite 1100 Wayne, PA 19087-1830 p: 610.265.8323 f: 610.265.4299 www.navenewell.com</p>	DRAWING NAME: PHOTO LOCATION MAP		PROJECT NAME: <i>Great Valley Corporate Center</i> EAST WHITELAND TWP, CHESTER COUNTY, PA	
	SCALE: NTS	DRAWN BY: BTK	PROJECT NUMBER: 2019 - 059.04	SHEET 1 OF 1
	CHK'D BY: PEL	APPROV. BY: GCN	DATE: 5/31/23	

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