



March 18, 2011

P 5753

Apex Engineering, Inc.
27 West Market Street
Newport, Delaware 19804

20110201

Attention: Mr. Jim Lober, P.E.

**SUBJECT: WETLANDS INVESTIGATION OF 20 MONTCHANIN ROAD
NEW CASTLE COUNTY TAX PARCEL 07-030.10-015**

Dear Mr. Lober:

At your request, LandmarkJCM investigated the above referenced property for the presence of wetlands. The investigation was performed in accordance with the Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1) and the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region. The site was previously investigated by JCM Environmental, Inc. and no wetlands were observed based on a letter dated March 11, 2008.

The property is located on the east side of Montchanin Road in New Castle County, Delaware. The property was bordered by undeveloped private property to the north; residential homes to the south and east; and Montchanin Road to the west. The property consisted of a commercial office building surrounded by paved parking lots, maintained lawn areas and landscape trees. Wooded areas were observed along the eastern and southeastern property boundaries. Site elevations fall above and below the 250 foot contour line according to the Wilmington North Quadrangle of the 7.5 Minute Series U.S. Geological Survey Map (see attached maps). No streams or definitive drainage channels are depicted by the USGS Map.

According to the USDA Web Soil Survey, the property is underlain primarily with Neshaminy Urban land complex (Nx B) with lesser areas of Neshaminy and Montalto silt loam (NvE), and Urthodents (UaB). The Neshaminy Urban land series consists of well-drained Neshaminy soils that have been disturbed through urbanization. The Neshaminy and Montalto series consists of well-drained soils that occur on the Piedmont Plateau. The Urthodents series consists of well-drained soils on ridges of the Piedmont Plateau. None of the mapped soil types are considered hydric by USDA Natural Resource Conservation Service.

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A representative soil boring in the wooded area in the northeastern corner of the property indicated 10YR3/2 silt loam to a depth of 4 inches followed by 10YR 5/4 silt loam to a depth of 15 inches, followed by 10YR 5/4 with 10YR 5/6 mottles to a depth of 18 inches. In the western portion of the site a representative soil boring indicated 10YR 3/3 silt loam to a depth of 4 inches followed by 10YR 4/4 silt loam to a depth of 11 inches, followed by 10YR 5/6 silty clay to a depth of 18 inches. No saturated soils or hydric soil conditions were observed within the subject property.

Surface water runoff from the subject property drains into existing storm drains within the maintained lawn areas and paved parking lots. This water is likely conveyed off-site to Brandywine River. No hydrology indicators were observed, nor indicators that would suggest seasonal high water tables (within 18" of the surface) within the subject property.

Tree species planted along the northern and eastern property boundary included Pin Oak, Eastern White Pine, Red Maple, Willow Oak, and Norway Maple. Landscape shrubs around the building and parking islands included Zelkova, Bradford Pear, Yew, Spruce, Red Osier, and Winterberry. The maintained lawn areas consisted of turf grasses. In the southeast corner of the property, vegetation included Black Cherry, Hickory, Bush Honeysuckle, and English Ivy. Vegetation along the northeastern property boundary consisted of Tulip Poplar, White Ash, Spicebush, European Privet, Black Cherry, English and Ground Ivy, Mountain Laurel, Bush Honeysuckle, and Japanese Honeysuckle. No areas within the property were dominated by wetland plant communities.

Both the U.S. Fish and Wildlife Service National Wetland Inventory map and the Statewide Wetland Mapping Program map depict no wetland areas within or nearby the subject property (see attached maps).

Based on the above, it was determined that no wetlands were present on the subject property at the time of the investigation.

If you have any questions please feel free to give me a call.

Sincerely,



William S. Twupack
Environmental Scientist



View looking southwest across maintained lawn area in the southwestern corner of the property.



Steep slope adjacent to parking lot in the southern portion of the property.



Maintained lawn area in the north-central portion of the property.



White Pines located along the north-central property boundary.



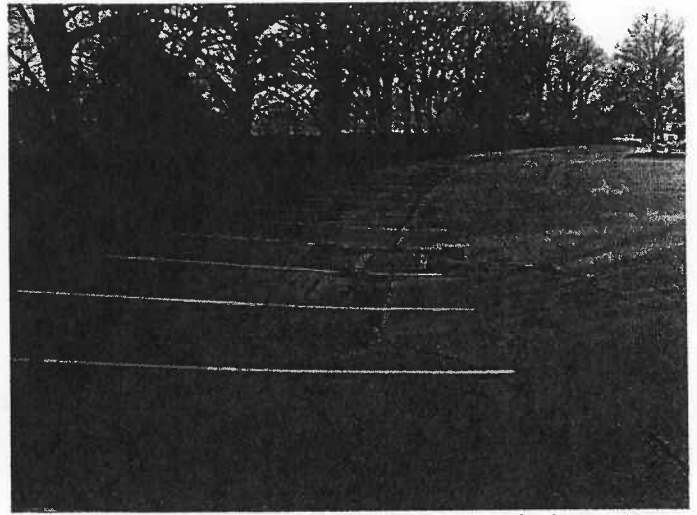
View looking west along the northern property boundary from the northwestern corner of the site.



Wooded upland in the northeastern corner of the property.



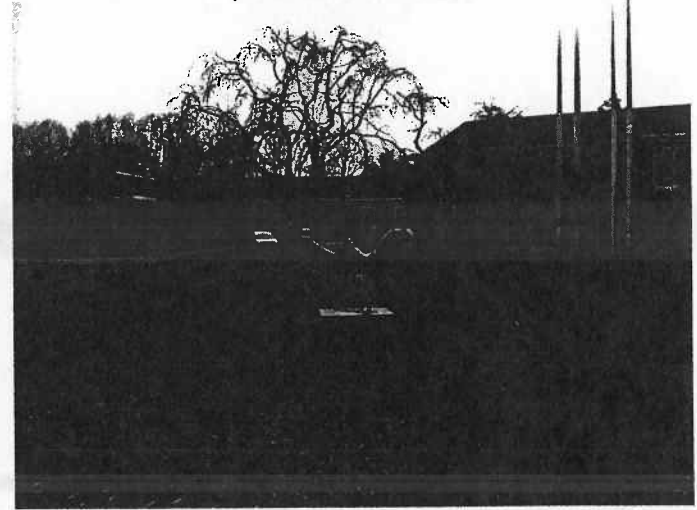
Wooded upland along the eastern property boundary.



Storm-drain located within paved parking lot in the eastern portion of the property.



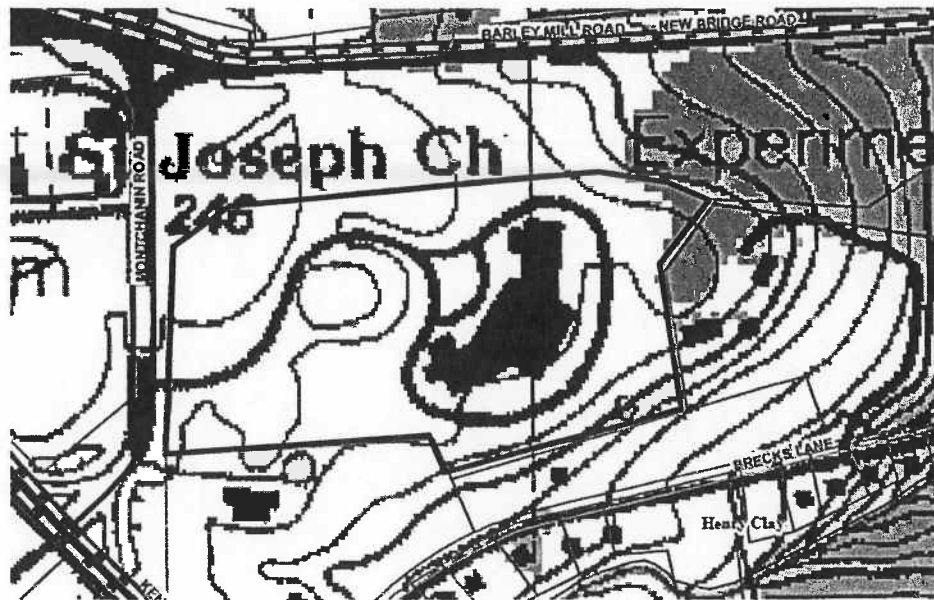
Ornamental trees located within island of parking lot in the southwestern portion of the property.



Looking east at landscape island in the front of the building.



Location Map



Wilmington North 7.5' USGS Quadrangle Map (DataMIL)



USDA Web Soil Survey



National Wetlands Inventory Map



State of Delaware Wetland Mapping Program



2009 Aerial Photograph