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1734 Seibel Drive NE Roanoke, Virginia 24012
Telephone: 540-344-7939 Fax: 540-344-3657

Reissued:
May 17, 2007

Vance Spilman
Commonwealth Commercial
P.O. Box 71150
Richmond, Virginia 23255

Subject: Wetland Delineation & Perennial Stream Determination
4.87 Acre Low Moor Site
Low Moor, Virginia
F&R Project No. H62-514E

Mr. Spilman:

On April 5, 2007, Mr. Greg Whitt of Froehling & Robertson, Inc. (F&R) visited the above referenced site located on State Route 1312 adjacent to Interstate 64 Exit 21 in the town of Low Moor in Alleghany County, Virginia to conduct a wetland delineation and stream assessment. The property is an approximately 4.87 acre site consisting of one contiguous parcel. F&R understands that plans for the site include the construction of a new hotel.

SCOPE OF SERVICES

The field study of wetlands was conducted using the onsite "routine" level wetland identification and delineation methodology detailed in the 1987 Corps of Engineers Wetland Delineation Manual. In order to make a determination that an area is a wetland, the Delineation Manual requires that, under "typical" conditions, a minimum of one primary indicator can be confirmed for each of the three mandatory wetland parameters. Mandatory wetland parameters are:

- The dominance of hydrophytic vegetation
- The presence of hydric soils
- The presence of wetland hydrology

The field observations included an evaluation of the entire project area to identify sites that demonstrably satisfy the three mandatory wetland criteria. Observations of the vegetation, soils and evidence of hydrology were recorded on the appropriate data forms (attached).

The stream assessment was conducted using the North Carolina Division of Water Quality–Stream Identification Form. This method ranks twenty-nine stream parameters in the following three classes:

- Stream geomorphology
- Stream hydrology
- Stream biology

The score for the twenty-nine parameters is added and when this score is equal to or higher than nineteen (19) the stream is considered intermittent, while a score of thirty (30) or higher indicates that the stream is perennial. Observations were recorded on the forms and are included with this report.

PRELIMINARY DATA GATHERING PHASE

Prior to conducting the field study, F&R reviewed the Soil Survey data for Alleghany County to help determine the soil type at the site. The site was identified as Urban land-Udorthents, smoothed complex, 3 to 15 percent slopes. This designation is attributable to the former Low Moor Iron Company which operated in the area until 1929. The entire site appeared to have been disturbed by the Company's operations based on the observation of significant quantities of slag throughout the site. In addition, F&R reviewed aerial photographs, topographic maps, and a survey plat showing the current site boundaries and proposed entrance. A review of the USGS Clifton Forge Topographic Quadrangle Map and aerial photographs shows the presence of a stream and spring-fed pond on the property. The stream bisects the southern corner of the site.

The stream survey requires that the survey be conducted more than 48 hours after a major rainfall event. According to the National Weather Service, the Covington/Low Moor area received 0.10 and 0.06 inches of rain on April 1 and 2, respectively; approximately 48 hours before the field visit (http://www.weather.gov/climate/xmacis.php?wfo=rnk).

ON-SITE OBSERVATION

The site visit was conducted on April 5, 2007. Weather conditions were not limiting during the field visit. It was sunny with excellent visibility, with temperatures in the mid 70's. During the field visit, F&R identified three jurisdictional wetland areas. Two perennial streams and one perennial spring-fed pond were confirmed on the subject site.

Investigations showed that streams #1 and #2 can be classified as perennial streams from the points where stream #1 enters the property on the south east corner to where

it exits the property on the south west corner, and for stream #2, from the point where it drains the spring-fed pond, in the south eastern corner of the site and enters stream #1. The pond is fed by three perennial springs that enter it on the south, east and northeast sides. An abandoned pump house is located on the eastern side of the pond. The pump house was built to supply water to the surrounding residences.

F&R performed perenniality determinations at one location in stream #1 (SP-1) and at one location where a spring enters the pond from the east side (SP-2) using the forms described above. Stream #1 scored 43 at data point SP-1 and stream #2 scored 40 at data point SP-2.

A data point (DP-3) was taken on the southwest side of the pond. Concluding; it appears, that the wetland boundary exists only around the well defined perimeter banks, forming a basin around the pond and springs which feed it. The wetland is oblong in shape and extends to the south and north along the flows of the springs which feed. It is apparent that the entire complex has been significantly altered from the historic iron ore smelting operations and subsequent use of the springs and pond as an area water supply. Based on measurements taken in the field, it is approximately 30 feet wide by 100 feet long; or 3,000 square feet (0.068 acre). Wetland characteristics are apparent throughout the entire spring-pond area.

CONCLUSIONS

Based on F&R's wetlands delineation, the site contains three jurisdictional wetlands; two perennial streams and one perennial spring-fed pond, which were flagged in the field. The current delineation and stream assessment will need to be verified by the U.S. Army Corps of Engineers (USACE) prior to the development of the site. F&R recommends that this report be submitted to the USACE. Subsequently, a USACE representative will visit the site to confirm the delineation. Confirmed wetland delineations are valid for a 5-year period after which a site will need to be re-delineated.

Based on the site development plans as relayed to F&R, we do not anticipate that there will be impacts to the streams or pond wetland areas.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Low Morr, Va.
Applicant/Owner: Commonwealth Commercial
Investigator: Froehling & Robertson, Inc. - Greg Whitt

Date: 4/5/2007
County: Alleghany
State: VA

Do Normal Circumstances exist on the site?	Yes ☑	No ☐	Community ID: Upland
Is the site significantly disturbed (Atypcial Situation)?	Yes ☑	No ☑	Transect ID: A
Is the area a potential Problem Area? (If needed, explain on reverse).	Yes ☐	No ☑	Plot ID: DP-3

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Acer Negundo	tree	FAC	Box Elder		
Platanus Occidentalis	tree	FAC	Sycamore		
Robinia Pseudoacacia	tree	FACU-	Locust		
Lonicera Japonica	vine	FACU	Honeysuckle		
Cercis Canandensis	sap	FACU	Red Bud		
Toxicodendron Radicans	sap	FAC+	Poison Ivy		

Percent of Dominant Species that ar OBL, FACW or FAC (excluding FAC-) 33%

Remarks:

HYDROLOGY

__ Recorded Data (Describe in Remarks):
- ___ Stream, Lake or Tide Gauge
- ___ Aerial Photographs
- ___ Other

X No Recorded Data Available

Field Observations:

Depth of Surface Water: n/a (in.)

Depth to Free Water n/a (in.)

Depth to Saturated Soil: n/a (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12 Inches
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 Inches
- ____ Water-Stained Leaves
- ___ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

SOILS

A1

Map Unit Name:
(Series and Phase): Urban Land-Udorthents, smoothed complex

Drainage Class: High

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes ☒ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structures, etc.
0-12	A	7.5YR 2.5/3	n/a	n/a	slag with sand and gravel

Auger refusal on five (5) adjacent borings, attributed to slag.

Hydric Soil Indicators:

_____ Histosol
_____ Histic Epidodon
_____ Sulfidic Odor
_____ Aquic Moisture Regime
_____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
_____ Concretions
_____ High Organic Content in Surface Layer in Sandy Soils
_____ Organic Streaking in Sandy Soils
_____ Listed on Local Hydric Soils List
_____ Listed on National Hydric Soils List
_____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐ No ☒	Is this Sampling Point Within a Wetland?	Yes ☐ No ☒
Wetland Hydrology Present?	Yes ☐ No ☒		
Hydric Soils Present?	Yes ☐ No ☒		

Remarks:

Hardwood upland adjacent to spring pond, significantly disturbed from historic iron ore smelting operations.

SITE MAP

North

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one hundred years of service

Client:	Commonwealth Commercial
Project:	4.87 Acre Low Moor Site -- Wetland Delineation
Location:	Low Moor, Virginia
F&R Project No.	1162-5145
Source:	Microsoft Terraserver Online (Photo 2000)
Date: April 2007	6715 Figure 2