

VETERAN ENGINEERING ASSOCIATES, INC.

Civil Engineering Services

Post Office Box 1625 Durham, North Carolina 27702

ph: 919-201-2175 • email: veteranengineeringassociates@yahoo.com

Project: Jordan Lake Detailing Center

INTRODUCTION

Location:	The Project site is located Southeast of the intersection of US1 and NCSR 1012 (Pittsboro-Moncure Road) between US1 and NCSR 1011 (Old US1). More specifically, the project is located adjacent to the private Taylor-Cross Road.
Current Zoning:	The site is currently Zoned R-1
Watershed:	RCSA
% Impervious Surface Allowed:	24% or 36% with strip paving
Major Wildlife:	The site does not border and is not located within Major wildlife areas identified within County of Chatham.
HUC:	The site has an HUC Fed Aquatic Species overlay
Site Acreage:	2.003 Acres Gross Area with 0.225 acres located in NCDOT R/W resulting in 1.778 acres of Net Area
Easement:	30' Private Access Easement; 30' Utility Easement; 60' Private R/W; and 50' NCDOT R/W
Current Use: & Content:	Vacant absent buildings – grassed site
Other CUP/ Rezoning Granted:	None

PROPOSED USE

Description of Use:	The term “Vehicles” shall include cars, trucks and boats. The term “Detailing” means the manual washing of Vehicles. The proposed use is Detailing facility; and said use is a permitted within the NB Zoning District.
Proposed Project Schedule:	Fall 2012 – Summer 2013
County Plans:	The site conforms to existing and proposed County Planning.
Site Plan:	A detailed Site Plan has been provided for your use and consideration Per field determination made by County of Chatham Agent, 30' Stream Buffer begins at the terminal end of the existing culvert and no Stream Buffer's exist on the Proposed Site.

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Addl. Information: Names and Mailing Addresses provided for your use.
Total area of land disturbance is approximately 0.91 acres and therefore less than two (2) contiguous acres.

Findings

1. The use requested is listed as a permitted conditional use within the existing zoning district
2. The proposed use is desirable for the existing parcel because the nearest Detailing shops are located in Sanford and Liberty and as such, this proposed use seeks to meet a demand within Chatham County. In contemplation of the allowable uses at this project site, the proposed use is desirable because said use creates a very minimal traffic demand upon the existing roadway facilities, provides new opportunities for employment, allows for commercial growth with minimal impact to the adjoining residential uses and said use will be beneficial to the Moncure community and its residents; and no additional public improvements are required to make the proposed use in this site; the proposed use anticipates an creation of three new opportunities for employment
3. The proposal use for the subject site anticipates the enhancement of the surrounding community as the proposed site conforms with the existing uses and serves to enhance the appearance and economic activity. There does not appear to be an concern with 911 serving of the proposed site, including fire, police and emergency serves.

Traffic: The site anticipates approximately 12 Vehicles per 8 hour day – therefore a maximum trip count would be 24 trips per 8 hour day plus employee traffic includes another 6 trips per day for a total of 30 trips per 8 hour day. This proposal has been issued to the NC DOT District Office in Asheboro and the project has obtained a general review with conditional acceptance from NC DOT. A peak traffic hour or day is not exist for this proposed use. No anticipated modifications to the existing roadway facilities are required and no revision to the existing speed limit is anticipated. Per NC DOT preliminary review their office appears to be in agreement with the foregoing statements.

Visual Impact: The existing topography is such that the building is naturally screened on the North and West sides already. However, in conformance with Chatham County Land Use Regulations, the proposed use provides for planted buffer's that anticipate adequate screening. A "Type B Buffer" is proposed along the East/Front side of the building while "Type A" Buffer's are proposed along the North, West and South sides of the Site. Notice that on the East side of the site on the far side of the State Road the existing Use is Vacant and heavily consists of mature trees. The South property line also is heavily wooded and a 30' stream buffer exists just off of the project site. The West side of the project site is also bounded by trees just off of the site boundary. The project anticipates a positive Visual Impact to the surrounding uses.

Lighting: Lighting will be required for the proposed use. The proposal anticipates the use of WalPak lighting mounted upon the building. Said lighting shall be controlled by a switch and be full cutoff. The proposed lighting shall not exceed 0.5 foot candles at the edge of the

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property line. Furthermore, said lighting proposed is 400W High Pressure Sodium. The proposed use anticipates that the lighting shall be turned off before mid-night. The use anticipates normal working hours of 8:00 am – 8:00 pm, depending on the season.

Noise: The proposed use does not anticipate any excessive noise being generated by this proposed use as Detailing shall be done within the proposed building.

Chemicals: The proposed site anticipates the use of soap detergents and other Detailing materials. Said soap detergents shall be captured in a proposed under drain system where the runoff shall be held in an on-site holding tank and said runoff shall be pump and hauled and properly disposed per prior approval granted by NCDWQ. There are no hazardous chemicals or explosives or biological hazardous compounds or radio active materials anticipated by this proposed use. All proposed soaps/detergents are to be collected in said holding tank. An alarm system is proposed to alert the site operator when 80% of the tank volume has been achieved. At that point the site operator shall contract to have the tank process water pumps and hauled from the site.

Signs: The use includes the display of a proposed sign. Said sign shall be mounted on the East Face of the proposed building. Said sign includes letters mounted on the face of the building such that the sign anticipates a square footage less than 200 sq. ft.

4. In regard to natural resources on the existing site, the proposed site consists of grass stabilized field with a minimal number of existing trees. The site is essentially grassed with existing gravel driveway access. As such, there is no natural resources that exist upon this site. The improvements to this site seek to enhance the existing use. The proposed use conforms to the existing watershed ordinance in regard to the proposed impervious surfaces. Said use seeks to reduce the impervious surfaces such that the proposed impervious surface of the site remains under 24%. There are no flooding concerns as the site is not located within any floodplain or floodways.
5. Existing Utilities: Adequate water utilities exist to support this site. The proposed use anticipates approximately 315 gallons per day. The proposed building includes one restroom, w/shower and clothes washer – according to fixture counts and with the basis of an 8-hour day the domestic sewage is approximately 105 gpd – 3 employees at 35 gallons per employee/day is 105 gallons per day. Based on a rate of 10-12 Vehicles per day, and an average water demand of approximately 14 gallons/vehicle and 15 vehicles/day gives a yield of 210 gallons per day. Therefore $105 \text{ gpd} + 210 \text{ gpd} = 315 \text{ gpd}$. A six-inch waterline exists in the shoulder of Pittsboro-Moncre Road. Water connection shall be made to the existing 6" waterline. Process Wastewater shall be pumped and hauled per prior approval by NCDWQ. Domestic Wastewater shall be handled onsite per approval previously obtained by Chatham County. Access is proposed to NCSR 1012 with the improvement of two existing driveways. Preliminary verbal approval has been obtained from NCDOT in regard to the proposed driveway access to NCSR 1012. Stormwater runoff is proposed to be collected in a stormwater piping system. Said piping system discharges stormwater to the South in conformance with the existing conveyance systems. No detention or treatment of stormwater is required. The impact to adjacent properties is insignificant.

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Water and Wastewater – Site Planning – Storm Water Management – Erosion Control – Trails – Civil Engineering Services

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February 21, 2012

Division of Water Quality
3800 Barrett Drive
Raleigh, NC 27609

Attn: Matt Fleahman

Subject: Derry Smith, Jr. Proposed Automobile Detailing Shop, Moncure, Chatham County, NC
Process Wastewater Store, Pump and Haul

Dear Mr. Fleahman:

As discussed, Mr. Smith proposes to construct and operate an automobile detailing shop on his property in Moncure, Chatham County, NC. Said property is located on Pittsboro-Moncure Road just south of its intersection with US 1. Per our conversation it is understood that the above use is deemed as permitted by the Division of Water Quality. In response to your request, the following information is furnished regarding the project.

Process wastewater from the detailing operation will be collected separately through floor drains and flow by gravity to an underground holding tank. All drains will be inside the building and no rainwater will be tributary to this system. The holding tank will be sized appropriately to allow for periodic pumping to empty the process wastewater, which will then be hauled to a local wastewater treatment plant for treatment.

The holding tank will be fitted with an alarm system that will notify the owner when the tank is nearing capacity and haulers need to be called to pump and haul the stored process wastewater, "Pump Tank". A second alarm will be activated should the tank reach its capacity, allowing for some freeboard to prevent overflows. Should the "Tank Full" alarm be activated, all process wastewater generating activities will cease until the holding tank is pumped down. Approximately two days of tank capacity will be available between the first and second alarms to allow for continued operation until such time as the haulers arrive to empty the tank.

Two local wastewater haulers have been identified to transport the process water. Maples Septic Tank Service of Sanford, NC, phone number 919-258-3750 and We Pump It of Sanford, NC, phone number 919-545-1139. Alarm information and haulers names and phone numbers will be prominently and permanently displayed at a suitable location inside the building.

Domestic wastewater will be handled separately through a septic tank system. A permit has been issued by the Chatham County Public Health Department.

Should you have any comments, questions or require additional information, please call.

Sincerely,

Thomas R. Kagarise

Veteran Engineering Associates, Inc.
(Professional Engineering Company License # C-3527)

Thomas R. Kagarise, P.E. (Professional Engineer License #011622)
As President

Derry Smith
2-20-12
Auto detailing Shop

Thomas J. Boyce R.S.
17 Downing

ANNIE ELIZABETH TAYLOR
D.B. JT, PG. 545
PLAT BK. 2, PG. 15

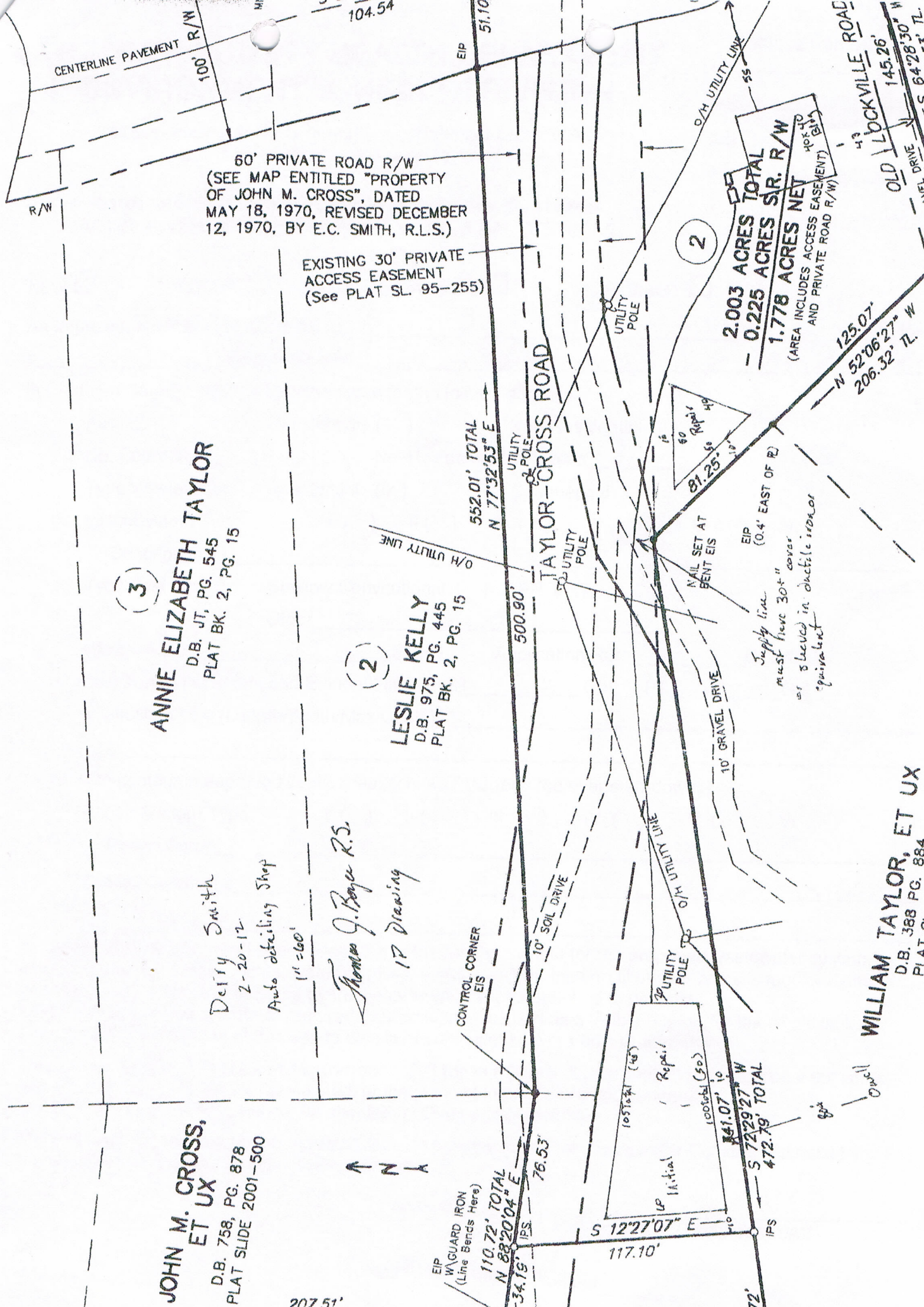
LESLIE KELLY
D.B. 975, PG. 445
PLAT BK. 2, PG. 15

60' PRIVATE ROAD R/W _____
(SEE MAP ENTITLED "PROPERTY
OF JOHN M. CROSS", DATED
MAY 18, 1970, REVISED DECEMBER
12, 1970, BY E.C. SMITH, R.L.S.)

EXISTING 30' PRIVATE —
ACCESS EASEMENT
(See PLAT SL. 95-255)

2.003 ACRES TOTAL
- 0.225 ACRES S.R. R/W
1.778 ACRES NET
(AREA INCLUDES ACCESS EASEMENT) 40%
AND PRIVATE ROAD R/W)

WILLIAM TAYLOR, ET UX
D.B. 388 PG. 884
PLAT C



CHATHAM COUNTY HEALTH DEPARTMENT ENVIRONMENTAL HEALTH DIVISION

80 East Street ▪ P. O. Box 130 ▪ Pittsboro, NC 27312-0130
Phone (919) 542-8208 ▪ Fax (919) 542-8288

Improvement Permit for Wastewater Systems ARTICLE II-CHAPTER 130A OF THE NC GENERAL STATUTES

OFFICE USE ONLY

TPN _____
Permit No. _____
Date _____
EHS _____
System Type _____

NEW ☒ REPAIR ☐ EXPANSION ☐ REVISED ☐

An Improvement Permit is issued to Derry Smith for
a 1.778 acre site located South side of Cross and Taylor Dr. on Pittsboro-Monrovia Rd
in Chatham County. It is specifically issued for the following facility:

Facility: Residential () Non-Residential (x)
No. Bedrooms _____ No. Residents/Employees 3
Type Wastewater: Residential (x) Commercial ()
Initial System Type: I () II () III (x) IV () V () VI ()

Description _____
Type System: Shallow Conventional () LPP ()
Other Pump to accept

Design Flow 105 GPD Application Rate 3 GPD/ft²
Size Tank(s) w/Risers and Effluent Filter ST 1000 Gal PT 1000 Gal
Nitrification Line (Length/Width/Max Depth) 90' x 3' x 18"

(On contour in approved septic area; sch. 40 PVC required over step-downs)

Repair System Type: I () II () III (x) IV () V () VI ()
Description pump to PDBPS

Special Conditions System to receive only sewage can collect water shall be handled by DW9 pump and tank

A plat with site plan showing specific location of the facility, the site for the proposed wastewater system, existing buildings, property lines, water supplies, surface waters, the conditions for any site modifications; and any other information required by the department must be attached to be valid.

Septic tank riser 6" above grade required over outlet access port as a visible marker for the septic tank. Solid PVC with elbows must be used to construct conveyance over dams or stepdowns.

This permit is valid [] without expiration [x] for five years but is subject to revocation if the site is altered, soil disturbed, set-backs violated, or the plans of intended use are changed. The Improvement Permit shall not be affected by change in ownership.

THIS IS NOT AUTHORIZATION TO INSTALL. An authorization for Wastewater Construction must be obtained from this department before installation.

Issued by Thomas J. Boyer R.S.
Environmental Health Specialist

N.C. Registration Number 1353

911 Address

Name