



## Town of Indian Trail

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### Memo

TO: Mayor and Town Council

FROM: Scott J. Kaufhold, P.E., Director of Engineering and Public Works 

DATE: 3/11/13

COUNCIL DATE: 3/12/13

SUBJECT: Oakwood Lane Design Fee

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### General Information:

Professional engineering, surveying, and geotechnical services will be required to assess and propose improvements to Oakwood Lane. The scope of work includes surveying and engineering design services at \$29,000 by Lawrence Associates and geotechnical services at \$2,000 by Boyle Consulting Engineers.

Staff recommends Council approve funding and scope of work by Lawrence Associates and Boyle Consulting Engineers.

### Required Actions:

Council Approval

### Attachments:

Lawrence Associates Proposal  
Boyle Consulting Engineers Proposal



106 W. Jefferson St.  
Monroe, NC 28112  
p: 704-289-1013  
866-557-8051  
f: 704-283-9035

A handwritten signature in blue ink, appearing to be 'JH', is located in the top right corner of the page.

February 27, 2013

Scott J. Kaufhold, P.E.  
Director of Engineer and Public Works  
Indian Trail, NC  
30 Blythe Drive, Indian Trail, NC  
(704) 821-1314

Reference: Oakwood Lane Improvements  
Lawrence Associates Job No. 2940

Dear Mr. Kaufhold,

Lawrence Associates, PA is pleased to submit a proposal for professional engineering and surveying services associated with Oakwood Lane improvements. Shown below are the services to be provided by Lawrence Associates

### Scope of Services

#### **Surveying Services**

- Location, topographic, and utility survey of Oakwood Lane. (Approximately 2,800' and 100' wide cross section)
- Location, topographic, and utility survey of Sardis Church Road for 200' east and west from the intersection of Oakwood Lane. (400' total)
- Contract with Sub-Consultant On-Target to mark existing utilities.
- Map R/W of Oakwood Lane.

**Not to exceed \$9,000**

#### **Engineering Services**

- Generate a preliminary grading plan and alignment for staff review.
- Work with Town staff to assist in establishing a proposed roadway cross section.
- Attend preliminary design meeting with Town staff.
- Permit grading and erosion control plans with NCDENR.
- Design and permit one BMP with Town for water quality and quantity requirements.

**Not to exceed \$16,000**



The scope of services, terms and conditions of this Letter Agreement are accepted:

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Print (Type) Individual, Firm, or Corporate Name

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Signature of Authorized Representative

Date

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Print (Type) Name of Authorized Representative and Title



4340 Taggart Creek Road Suite H  
Charlotte, NC 28208  
Tel: 704-676-0778  
Fax: 704-676-0596  
www.boyleconsulting.com

A handwritten signature in blue ink, located in the top right corner of the page.

March 11, 2013

VIA E-MAIL: [tdh@engineering.indiantrail.org](mailto:tdh@engineering.indiantrail.org)

Mr. Todd Huntsinger  
Civil Engineer I  
Town of Indian Trail  
130 Blythe Drive  
Indian Trail, North Carolina 28079

Subject: **Proposal for Pavement and Limited Subsurface Investigation  
Proposed Oakwood Lane Evaluation/Extension  
Indian Trail, North Carolina  
BOYLE Proposal No. 13-022**

Dear Mr. Huntsinger:

As requested, Boyle Consulting Engineers, PLLC (BOYLE) is pleased to present you with this proposal to provide pavement and limited subsurface investigation services for the referenced project. This proposal presents our understanding of the project, outlines the anticipated scope of services required and presents our cost estimate for the proposed scope.

#### **PROJECT INFORMATION**

BOYLE understands that the proposed Oakwood Lane will be constructed to tie-in to the park property (see attached Figure 1). BOYLE has been asked to perform asphalt coring and a limited subsurface investigation for the construction of the road with the following three construction options at the existing road:

1. Widening and overlay of existing road to 24.0 feet wide
2. Overlay the existing pavements (no widening)
3. Demolish and reconstruct using the reclaimed asphalt

In addition, a new road extension will be constructed 500 feet long and 24.0 feet wide. The project information is based on your email and attachment dated March 7, 2013.

## **PROPOSED SCOPE OF SERVICES**

### ***Task I-Investigate Existing Road Structure***

At this time, BOYLE recommends the following scope of work:

- Make a site visit to "field truth" the existing conditions and to identify potential additional test locations.
- Core the existing asphalt section at 3 locations. The extracted cores then will be returned to our laboratory for additional evaluation and testing.
- Perform hand augers with Dynamic Cone Penetrometer (DCP) testing per ASTM STP-399 at each core location to a depth of about 2 to 3 feet to evaluate the subsurface conditions.
- Determine the in-situ moisture content of the subgrade soils immediately below the pavement section.

BOYLE understands that Oakwood Lane was constructed several years ago by a private developer. Therefore any previous design and testing data is not available.

### ***Task II –Limited Subsurface Investigation of 500 ft Road Extension***

At this time, BOYLE recommends the following scope of work:

- Perform 5 hand auger borings with DCP testing per ASTM STP-399 to depths of about 5 feet below existing grades to evaluate the subsurface conditions.
- Note any groundwater encountered during boring operations.
- Backfill the boreholes at completion of all field operations.
- Visually classify the recovered soil samples.
- Reporting our findings and conclusions in a written report which includes a boring location plan and boring logs.

## **REPORTING**

BOYLE will prepare a preliminary evaluation of existing support conditions and submit our results and observations in a written report. The written report will outline recommendations for the requested three reconstruction options, including a boring location plan and boring logs.

## **EXECUTION**

Ms. Michelle B. Richards, P.E. will be the Senior Engineer and Project Manager for this work. She will be available for onsite meetings, consultation and reporting as needed and required.

## **FEE BASIS/INVOICING**

BOYLE will provide our services on a **TIME AND MATERIALS NOT TO EXCEED WITHOUT PRIOR WRITTEN APPROVAL** basis for a maximum value of \$2,000 in accordance with the attached 2013 Professional Fee Schedule. As a courtesy, we have prepared an estimate based on our understanding of the current scope of work and our previous experience with projects of similar size and scope.

## **AUTHORIZATION**

If this proposal meets your requirements, please execute and return the attached Proposal Acceptance (PA). Please note any special instructions on the PA. *Your acceptance will make this proposal and the PA Agreement binding and will authorize BOYLE to proceed with the proposed work.*

## **CLOSING**

BOYLE appreciates the opportunity to assist you and provide our services on this project. Please contact us should you have a question regarding this proposal.

Sincerely,

## **BOYLE CONSULTING ENGINEERS, PLLC**



Michelle B. Richards, P.E.  
Senior Engineer

Attachments: Proposal Acceptance sheet  
Professional Fee Schedule  
Cost Estimate  
Figure 1



4340-H Taggart Creek Rd.  
Charlotte, NC 28208  
Phone 704-676-0778  
Fax 704-676-0596  
Email: cboyle@boyleconsulting.com

**PROPOSAL ACCEPTANCE**

**Project Client:** Town of Indian Trail  
**Project Name/ Location:** Proposed Oakwood Lane Evaluation/Extension  
**Proposal No. and Date:** 13-022, March 11, 2013  
**Type of Services:** Pavement Evaluation/Design  
**Fee:** \$2,000  
**Contract Type:** T&M

**CLIENT BILLING INFORMATION:**

**Company** \_\_\_\_\_

**Name (Project Contact)** \_\_\_\_\_ **Title** \_\_\_\_\_

**Address** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip** \_\_\_\_\_

**Send invoice via:** e-mail fax postal mail (circle preferred method of delivery)

**If invoice is to be e-mailed to different address please print here** \_\_\_\_\_

**Phone** \_\_\_\_\_ **Fax** \_\_\_\_\_ **E-mail** \_\_\_\_\_

**Attention** (if different than project contact) \_\_\_\_\_

**Social Security Number/FID:** \_\_\_\_\_

**SPECIAL INSTRUCTIONS:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PROPOSAL ACCEPTANCE**

The referenced Proposal and the Terms and Conditions of this Proposal (see the following page hereof) are:

Accepted this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

\_\_\_\_\_  
Print or type individual, firm or corporate body name

\_\_\_\_\_  
Signature of authorized representative

\_\_\_\_\_  
Print or type name of authorized representative and title

Note: Signature above represents that the contracting entity has read and agrees to terms expressed on Page 2 of 2

**TERMS AND CONDITIONS**  
**BOYLE CONSULTING ENGINEERS, PLLC (BOYLE)**

1. **PAYMENT TERMS.** Client agrees to pay BOYLE's invoice upon receipt. If payment is not received within 30 days from the Client's receipt of BOYLE's invoice, Client agrees to pay a service charge on the past due amount at 1.5% per month or the allowable legal rate, including reasonable attorney's fees and expenses if collected through an attorney. BOYLE may elect to suspend services until paid at any time. Failure to make payment within 60 days from the date of our Invoice shall constitute a release of BOYLE from any and all claims which Client may have. In the event Client requests termination prior to completion of the proposed services, Client agrees to pay BOYLE for all reasonable charges incurred to date and associated with termination of the work. The individual signer on behalf of Client hereby personally represents and guarantees that Client is solvent and has the ability to pay BOYLE for the services to be rendered in accordance with the terms hereof.
2. **STANDARD OF CARE.** BOYLE will perform its services using that degree of care and skill ordinarily exercised under similar conditions by reputable members of BOYLE's profession practicing in the same or similar locality at the time of service. No other warranty, expressed or implied, is made or intended by our proposal or by our oral or written reports. Client agrees to provide BOYLE with any and all information pertinent to the BOYLE services to be performed that is reasonably available to Client.
3. **PROFESSIONAL LIABILITY.** Client agrees that BOYLE's liability, and that of its members, employees, agents, and subcontractors, to Client or any third party due to any negligent professional acts, errors or omissions or breach of contract by BOYLE will be limited to an aggregate of \$5,000 or BOYLE's total charges, whichever is greater. If Client prefers to have higher limits of professional liability, BOYLE agrees to increase the aggregate limit, up to a maximum of \$1,000,000, at the Client's written request at the time of accepting our proposal, provided Client agrees to pay an additional amount of ten percent of BOYLE's total charges, or \$500, whichever is greater. The additional charge for the higher liability limit is because of the greater risk assumed by BOYLE.
4. **SITE OPERATIONS.** Client will arrange for right-of-entry to the property for BOYLE's activities. BOYLE's field personnel are trained to initiate field-testing, drilling and/or sampling within a reasonable distance of designated locations. BOYLE's field personnel will avoid hazards and other unsafe conditions, or utilities, which are clearly marked at the site. If BOYLE is advised in writing of the presence or potential presence of underground or overground obstructions, such as utilities or other potentially hazardous conditions, we will give special instructions to our field personnel. BOYLE is not responsible for any damage or loss due to undisclosed or unknown surface or subsurface conditions owned by Client or third parties except to the extent such damage, injury, or loss is a result of BOYLE's negligence. Otherwise, Client agrees to indemnify BOYLE, its principals, employees, agents and subcontractors, from any such claims, suits or losses, including related reasonable attorney's fees. BOYLE will take reasonable precautions to minimize damage to the property caused by our operations.
5. **FIELD REPRESENTATIVE.** The presence of BOYLE's or its subcontractor's field personnel, either full-time or part-time, may be for the purpose of providing project administration, assessment, observation, and/or field testing of specific aspects of the project as authorized by Client. Should a contractor(s) not retained by BOYLE be involved in the project, Client will advise such contractor(s) that BOYLE's services do not include supervision or direction of the means, methods or actual work of the contractor(s), its employees or agents. Client will also inform contractor that the presence of BOYLE's field representative for project administration, assessment, observation or testing will not relieve the contractor of its responsibilities for performing the work in accordance with the plans and specifications. If a contractor (not a subcontractor of BOYLE) is involved in the project, Client agrees, in accordance with generally accepted construction practices, that the contractor will be solely and completely responsible for working conditions on the job site, including security and safety of all persons and property during performance of the work, and compliance with all Client safety requirements and OSHA regulations. These requirements will apply continuously and will not be limited to normal working hours. It is agreed that BOYLE will not be responsible for job or site safety or security on the project, other than for BOYLE's employees and subcontractors, and that BOYLE does not have the duty or right to stop the work of the contractor.
6. **WASTE DISPOSAL.** If Client requests BOYLE to containerize drilling wastes and/or fluids produced by BOYLE's activity ("Wastes"), Client will provide a secure temporary storage location at or near the project site to prevent tampering with such containerized Wastes. Non-hazardous Wastes will be disposed of by BOYLE for an additional charge at an appropriately licensed facility. Any Hazardous Wastes will be disposed of under manifest executed by Client at any properly licensed facility selected by Client with BOYLE's assistance. At no time will BOYLE take title to such Hazardous Wastes.
7. **DOCUMENTS.** All documents prepared by BOYLE are furnished for Client's exclusive use and reliance, but not for advertising or any other type of general distribution. All documents generated by BOYLE under this Agreement shall remain the sole property of BOYLE. If a release of documents to other third parties is agreed upon between BOYLE and a third party at Client's request, Client acknowledges that such request for release creates a potential conflict of interest for BOYLE and by this request Client waives any such claim if BOYLE complies with the request.
8. **CLAIMS.** The parties agree to attempt to resolve any dispute without resort to litigation, including use of mediation, prior to filing of any suit. However, in the event a claim results in litigation, and the claimant does not prevail at trial, then the claimant shall pay all costs incurred in pursuing and defending the claim, including reasonable attorney's fees. Client agrees that for purposes of this Agreement, Client has failed to prove a claim when the judgement in litigation is for a sum of money less than that sum of money offered by BOYLE to resolve the matter without litigation.
9. **CONFIDENTIALITY.** BOYLE will maintain as confidential any documents or information provided by Client and will not release, distribute or publish same to any third party without prior permission from Client, unless compelled by law or order of a court or regulatory body of competent jurisdiction. Such release will occur only after prior notice to Client.
10. **GOVERNING LAW.** This Agreement shall be governed in all respects by the laws of the State of North Carolina.
11. **SURVIVAL.** All provisions of this Agreement for indemnity or allocation of responsibility or liability between Client and BOYLE shall survive the completion of the services and the termination of this Agreement.
12. **SEVERABILITY.** In the event that any provision of this Agreement is found to be unenforceable under law, the remaining provisions shall continue in full force and effect.
13. **ASSIGNMENT.** This Agreement may not be assigned by either party without the prior permission of the other.
14. **INTEGRATION.** This Proposal Acceptance Sheet and our written proposal constitute the entire Agreement between the parties and cannot be changed except by a written Instrument signed by both parties.



*Development and Construction Project Services*

**2013 PROFESSIONAL FEE SCHEDULE**

**Labor/Professional Services**

Staff Technician, per hour-----	\$ 32.00
Project Technician, per hour -----	\$ 39.00
Senior Technician, per hour-----	\$ 42.00
Special Inspector, per hour-----	\$ 65.00
Staff Engineer, Geologist, Professional, per hour-----	\$ 75.00
Registered Engineer or Geologist, per hour-----	\$ 85.00
Senior Registered Engineer, per hour-----	\$ 95.00
Chief Engineer, per hour-----	\$ 115.00
Principal Engineer, per hour-----	\$ 150.00
Project Administrator, per hour-----	\$ 55.00
GIS Manager, per hour-----	\$ 65.00

**Laboratory Testing Services**

Natural Moisture content, (ASTM D-2216), each-----	\$ 10.00
Atterberg Limits, (ASTM D-4318), each-----	\$ 95.00
Grain Size (Wash 200 Sieve), (ASTM D-1140), each-----	\$ 45.00
Hydrometer Analysis (Clay/ Silt Fractions), each-----	\$ 85.00
Grain Size (Standard Sieves), (ASTM D-422), each-----	\$ 55.00
Standard Test Methods for Moisture, Ash, and Organic Content (ASTM D-2974), each-----	\$ 40.00
Standard Proctor Compaction, (ASTM D-698), each-----	\$ 100.00
Modified Proctor Compaction, (ASTM D-1557), each-----	\$ 125.00
California Bearing Ratio Tests (3 soaked points), (ASTM D-1883), each-----	\$ 600.00
Triaxial Compression Tests, Consolidated-undrained with pore pressure measurements-----	\$ 950.00
Unconfined Compressive Strength of Concrete-Cast, (ASTM C-39), each-----	\$ 12.00
Unconfined Compressive Strength of Concrete-Cores, (ASTM C-42), each-----	\$ 70.00
Unconfined Compressive Strength of Mortar Cube/Cylinder (ASTM C-780), each-----	\$ 18.00
Unconfined Compressive Strength of Grout Prism (ASTM C-1019), each-----	\$ 18.00
Specific Gravity Asphalt Cores, (ASTM D-2726), each-----	\$ 20.00
Consolidation Test, (ASTM D-2435)-----	CALL FOR QUOTE

**Field Testing Services**

Mobilization of Drill Crew and Equipment, local, each-----	\$ 315.00
Soil Test Borings, (ASTM D-1586), standard sampling intervals, per linear foot-----	\$ 10.00
Additional depth charge for drilling greater than 50 feet, per linear foot-----	\$ 1.50
Additional Split-Spoon samples, each-----	\$ 20.00
Additional Shelby Tube samples, each-----	\$ 80.00
Auger Boring (no samples obtained), per linear foot-----	\$ 8.00
Drill Crew difficult moving, clearing access, standby, water hauling, layout of borings, per hour---	\$ 180.00
Dozer/Backhoe rental for clearing access to boring locations, moving drill rig, test pits, etc.-----	CALL FOR QUOTE
Rock Coring: a. set-up, per boring-----	\$ 175.00
b. casing, per linear foot-----	\$ 7.50
c. coring, per linear foot-----	\$ 50.00
d. water tank, per day-----	\$ 75.00
Grouting of Borings, per linear foot-----	\$ 8.00
Piezometer Installation, backfilled w/ cuttings, non-grouted, per linear foot-----	CALL FOR QUOTE
Mileage, per mile-----	\$ 0.75
<b>Travel, Subcontract, Specialty Services and Other Miscellaneous Expenses-----</b>	<b>CALL FOR QUOTE</b>

Notes:

- Hourly labor rates are portal to portal and include labor expenses, benefits, payroll taxes, overhead, and profit. Scheduling of fieldwork should be made 24 hours in advance.
- Work performed outside of normal business hours (8am to 5pm), holidays, or weekends, to meet project requirements, will be invoiced at 1.5 times the listed rate/s.

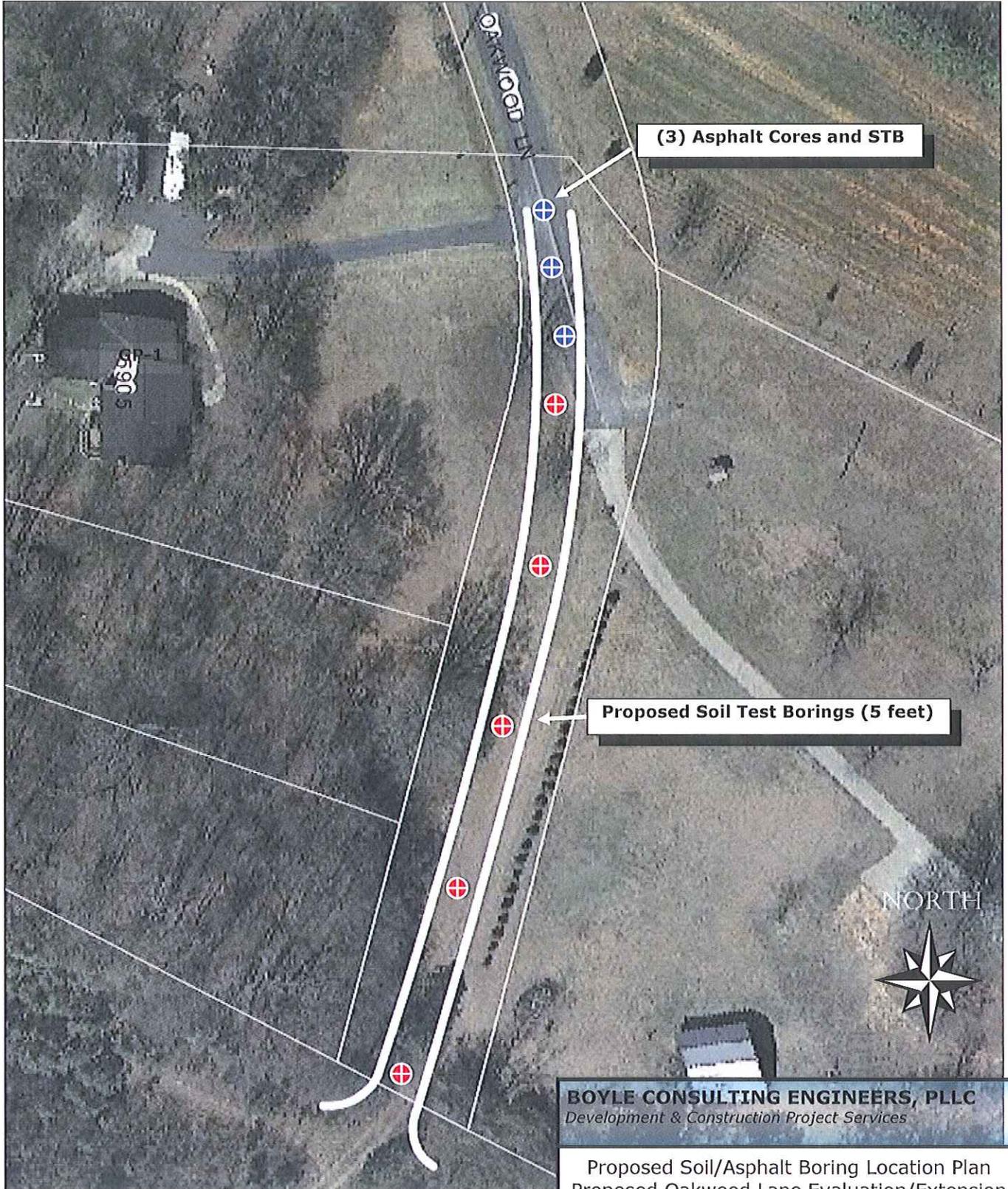


# COST ESTIMATE

Name of Project: Proposed Oakwood Lane Improvement/Extension		Date: 3/11/2013			
Scope of Project: Limited Subsurface Investigation		Project No: 13-022			
<b>Field Services Allowance</b>					
	Test Days	Hrs./Test Day	\$/Hr.	Total	Comments
Sr. Engineering Technician	1.0	10.00	42.00	\$ 420	
<b>Subtotal</b>	<b>1.0</b>			<b>\$ 420</b>	<b>Engineering field work and travel time</b>
<b>Laboratory Testing Allowance</b>					
	No.		\$/ea.	Total	Comments
Standard Proctor/ ASTM D-698			110.00	\$ -	
Modified Proctor/ ASTM D-1557			130.00	\$ -	
<b>Subtotal</b>				<b>\$ -</b>	<b>Laboratory testing</b>
<b>Engineering Services Allowance</b>					
	Hours		\$/Hr.	Total	Comments
Registered Engineer	9.0		115.00	\$ 1,035	
Secretarial	2.0		55.00	\$ 110	
Principal Engineer	2.0		150.00	\$ 300	
<b>Subtotal</b>				<b>\$ 1,445</b>	<b>Engineering services</b>
<b>Incidentals Allowance</b>					
	Test Days	No. Units	\$/Unit		Comments
Core Rig	1.0	0.50	190.00	\$ 95	
Mileage	1.0	46.00	0.75	\$ 35	Vehicle trip charge
<b>Subtotal</b>				<b>\$ 130</b>	<b>Incidentals</b>
<b>GRAND TOTAL</b>			<b>\$</b>	<b>1,995</b>	

THIS ESTIMATE HAS BEEN PREPARED BASED ON LIMITED INFORMATION MADE AVAILABLE TO BOYLE. Actual costs incurred will be in accordance with the attached Professional Fee Schedule; this estimate is not to be interpreted as a lump sum or not-to-exceed budget.

**Michelle B. Richards, P.E., Construction Services Manager**



**(3) Asphalt Cores and STB**

**Proposed Soil Test Borings (5 feet)**



**BOYLE CONSULTING ENGINEERS, PLLC**  
*Development & Construction Project Services*

Proposed Soil/Asphalt Boring Location Plan  
 Proposed Oakwood Lane Evaluation/Extension  
 Indian Trail, North Carolina  
 BOYLE Project No. 13-022

3/11/13	Drawn By: CB	Scale Shown	Fig: 1
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