West Longleaf Drive Rehabilitation Project
City of Auburn, Alabama

Addendum 1
October 26, 2026

The following, as clarifications, corrections or changes to the Contract Documents, will be included into any agreement for the construction of the West Longleaf Drive Rehabilitation Project and must be taken into account in preparing and submitting a Bid for the work. No other provisions or conditions are waived or changed hereby.

Acknowledgment of receipt of this addendum shall be emailed back to the City of Auburn at webengineering@auburnal.gov AND included within the prospective contractor's sealed bid submitted by **11:00 AM** on **Wednesday, November 4, 2026.**

Changes and Additions

1. Base Bid Sheet:
    a. Added Item# 408A053 – Planing Existing Pavement (Approx. 2.10" thru 3.00" thick)
    b. Removed Item# 408B001 – Milling Existing Pavement, 1.10-2.0"
    c. Changed lbs on Item# 302B000 Portland Cement For Full Depth Reclamation (60lbs) to Portland Cement For Full Depth Reclamation (72lbs).
    d. Changed to quantity on Item# 302B000 Portland Cement For Full Depth Reclamation from 465 to 548.
    e. Changed to quantity on Item# 621C056 Inlet, Type S3 (1 wing) (Partial) from 20 to 13.
    f. Changed to quantity on Item# 621C062 Inlet, Type S3 (2 wing) (Partial) from 6 to 3.
2. Plans:
    a. See plans for specific changes.

3. Removed proposal for the Subsurface Exploration and Pavement Evaluation from ACAI Construction Testing in Appendix B. for the West Longleaf Drive Rehabilitation Project (pages 93-95)

Attachments:

1. Revised Base Bid Sheet
2. Revised Plans
3. Appendix B updated with proposal removed

- -

I acknowledge receipt of Addendum 1 to the West Longleaf Drive Rehabilitation Project.

_____

(Name)

_____

(Date)

WEST LONGLEAF REHABILITATION PROJECT

BASE BID

Revised 10/26/26

ITEM#	DESCRIPTION	UNIT	QUANTITIY	COST	TOTAL COST
206C000	Removing Sidewalk	Square Yard	294.00		
206E042	Removing Inlet Top	Each	26.00		
302A000	Full Depth Reclamation, 12 Inches Deep	Square Yard	13,807.00		
302B000	Portland Cement For Full Depth Reclamation (72lbs)	Ton	548.00		
405A000	Tack Coat	Gallon	3,625.00		
408A053	Planing Existing Pavement (Approx. 2.10" thru 3.00" thick)	Square Yard	15,201.00		
408B000	Milling Existing Pavement, 0-1"	Square Yard	6,983.00		
424A276	424-A Superpave Bituminous Concrete Wearing Surface, 3/8 Inch Max Aggregate Size, ESAL Range E, 1 inches thick	Ton	1,144.00		
424A280	424-A Superpave Bituminous Concrete Wearing Surface, 1/2 Inch Max Aggregate Size, ESAL Range E, 1.5 inches thick	Ton	1,056.00		
424B280	424-B Superpave Bituminous Concrete Lower Binder Layer, 3/4" Max Aggregate Size Mix, ESAL Range E 2 inch thick	Ton	3,062.00		
424B284	424-B Superpave Bituminous Concrete Upper Binder Layer, Patching, 3/4" Maximum Aggregate Size Mix, ESAL Range E	Ton	500.00		
424B287	424-B Superpave Bituminous Concrete Upper Binder Layer, Leveling, 1/2" Maximum Aggregate Size Mix, ESAL Range E	Ton	704.00		
600A000	Mobilization	Lump Sum	1.00		
618A000	Concrete Sidewalk, 4" Thick	Square Yard	294.00		
621C056	Inlet, Type S3 (1 wing) (Partial)	Each	13.00		
621C062	Inlet, Type S3 (2 wing) (Partial)	Each	3.00		
622A004	Manhole Covers Reset (Riser Ring Method)	Each	10.00		
701A004	Solid White, Class 2, Type A Traffic Stripe (5" Wide)	Mile	0.10		
701A230	Solid Yellow, Class 2, Type A Traffic Stripe (5" Wide)	Mile	3.20		
701A244	Broken Yellow, Class 2, Type A Traffic Stripe (5" Wide)	Mile	3.20		
701B207	Dotted White, Class 2, Type A Traffic Stripe (5" Wide)	Linear Feet	135.00		
701C000	Broken Temporary Traffic Stripe	Mile	6.40		
701C001	Solid Temporary Traffic Stripe	Mile	4.26		
703A002	Traffic Control Markings, Class 2, Type A	Square Feet	1,200.00		
703B002	Traffic Control Legends, Class 2, Type A	Square Feet	250.00		
703D001	Temporary Traffic Control Markings	Square Feet	1,200.00		
703E001	Temporary Traffic Control Legends	Square Feet	250.00		
705A004	Pavement Markers, Class A, Type 2-C	Each	6.00		
705A037	Pavement Markers, Class A-H, Type 2-D	Each	420.00		
740A000	Traffic Control	Lump Sum	1.00		

TOTAL BASE BID FOR WEST LONGLEAF REHABILITATION PROJECT: _____

_____

_____

(IN WORDS)

CONTRACTOR NAME: _____

COMPANY NAME: _____

ADDRESS: _____

MAILING ADDRESS: _____

CITY/STATE/ZIP CODE: _____

TELEPHONE NUMBER: _____

FAX NUMBER: _____

Plans for:

The City of Auburn

Auburn, Alabama

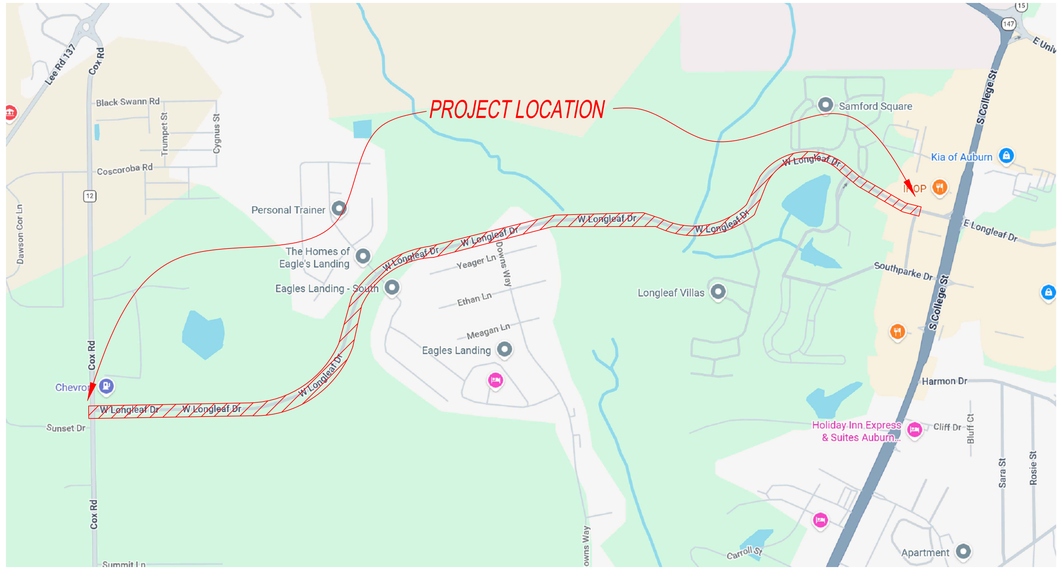
W LONGLEAF REHABILITATION

Sheets:

1: TITLE SHEET
2: GENERAL NOTES
3: STA 0+00 - 25+00
4: STA 25+00 - 41+00
5: STA 41+00 - 70+00
6: STA 70+00 - 84+00
7: DETAILS

UTILITY CONTACT INFORMATION			
PHONE #	UTILITY	TITLE	ADDRESS
334-502-2323	ALABAMA POWER DISTRIBUTION	ENGINEERING SUPERVISOR	1699 S College St, Auburn, AL 36832
334-241-4302	SPIRE	MANAGER GIS SOUTH	605 Richard Arrington Jr Blvd N, Birmingham, AL 35203-2707
334-274-4887	SPECTRUM	CONSTRUCTION MGR FOR SOUTH ALABAMA	1990 Mall Blvd, Auburn, AL 36830
334-501-3060	WATER RESOURCE MANAGEMENT	DIRECTOR	1501 W Samford Ave, Auburn, AL 36832
334-741-7889	AT&T SOUTHEAST	MANAGER OSP PLANNING & ENG. DESIGN	1710 Opelika Road, Auburn, AL. 36830
800-252-5960	KINDER MORGAN	LINE PATROLLER	2635 Balsam Ave, Birmingham, AL - 35211

VICINITY MAP:



Engineering Services
161 N. ROSS STREET
AUBURN, ALABAMA 36830
PHONE: (334) 501-7390
FAX: (334) 501-7294

AUBURN

ALABAMA LICENSED 35598 PROFESSIONAL ENGINEER MICHAEL THOMAS GRIFFIN

COVER

CITY OF AUBURN
W LONGLEAF REHABILITATION

REVISIONS				
NO.	CHECK	DATE	DESCRIPTION	

DRAWN: TG
CHECKED: MG
DATE: OCTOBER 2026
SCALE: NTS
SHEET NO.: 1

PROJECT NOTES

GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE PURCHASE OF A CONTRACTOR'S LICENSE AND BUSINESS LICENSE FORM THE CITY AND/OR COUNTY AS APPLICABLE, AS WELL AS, ALL OTHER LICENSES AND PERMITS REQUIRED FOR COMPLETION OF THE WORK.
2. EXCEPT FOR EMERGENCY WORK, WORK SHALL NOT BE PERFORMED ON SATURDAY, SUNDAY, OR AND LEGAL HOLIDAY WITHOUT APPROVAL FROM THE CITY. WORK SHALL OCCUR DURING REASONABLE DAY-TIME HOURS. REQUEST FOR DEVIATIONS FROM THIS SCHEDULE SHALL BE MADE TO THE CITY ON A CASE-BY-CASE BASIS A MINIMUM OF 72 HOURS PRIOR, EXCEPT FOR EMERGENCIES, IN WHICH CASE NO SUCH APPROVAL IS REQUIRED.
3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND DEVELOPMENT OF CONSTRUCTION BEST MANAGEMENT PRACTICES (CBMPP) RELATED TO EROSION AND SEDIMENT CONTROL AS MAY BE REQUIRED BY AUTHORITIES HAVING JURISDICTION AND REGULATORY AGENCIES, UNLESS SUCH PERMITS AND/OR CBMPP'S ARE ATTACHED TO THE CONTRACT DOCUMENTS. IN ALL CIRCUMSTANCES, THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY INSTALLING AND MAINTAINING SUFFICIENT EROSION CONTROL MEASURES AS MAY BE REQUIRED TO PREVENT SEDIMENT FROM DISCHARGING FROM THE SITE AND IN COMPLIANCE WITH ANY PERMITS AND CBMPP.
4. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTATION OF PRE-EXISTING CONDITIONS PRESENT WITHIN AND ADJACENT TO THE CONSTRUCTION AREA. DOCUMENTATION OF EXISTING CONDITIONS SHALL CONSIST OF DATE-STAMPED VIDEO, PHOTOGRAPHS AND WRITTEN RECORDS. COPIES OF ALL DOCUMENTATION SHALL BE DELIVERED TO THE CITY PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES. DOCUMENTATION OF PRE-EXISTING CONDITIONS IS REQUIRED TO AVOID CLAIMS FOR DAMAGE TO PROPERTY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY THEIR ACTIVITIES IN THE PROJECT AREA, WHETHER ON PUBLIC OR PRIVATE PROPERTY. DAMAGE SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS OR BETTER AND TO THE SATISFACTION OF THE CITY AND LAND OWNER(S). REPAIRS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS AS TO NOT DISTURB PROPERTY CORNER/ROW MARKERS AND BENCHMARKS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY, INCLUDING ANY REQUIRED SURVEYING, TO REPLACE ANY DISTURBED MARKERS AND/OR MONUMENTS.
7. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART 6, 11TH EDITION, FOR ANY ROADWAY OR SIDEWALK CLOSURE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A TRAFFIC CONTROL PLAN.
9. JOB SITE SHALL BE CLEANED ON A DAILY BASIS. THE CONTRACTOR SHALL RESTORE ALL AREAS WHETHER PUBLIC OR PRIVATE, AS SOON AS PRACTICAL FOLLOWING COMPLETION OF PARTICULAR CONSTRUCTION ACTIVITIES.
10. THE CONTRACTOR SHALL REPAIR ALL EXCAVATED AREAS, BACKFILLS, EMBANKMENTS, TRENCHES AND DITCHES WHICH MAY HAVE SETTLED AT NO ADDITIONAL COST TO THE OWNER UNTIL FINAL ACCEPTANCE OF THE PROJECT AND THROUGHOUT THE WARRANTY PERIOD.
11. NO ADDITIONAL PAYMENT SHALL BE MADE FOR ROCK EXCAVATION AND REMOVAL. BIDDERS MAY MAKE THEIR OWN INVESTIGATION AS TO THE AMOUNT AND CHARACTER OF ROCK WHICH MAY NEED TO BE REMOVED. ALL COST FOR ROCK EXCAVATION SHALL BE CONSIDERED TO HAVE BEEN INCLUDED IN THE VARIOUS PAY ITEMS IN THE PROPOSAL.
12. ANY SIDEWALK OR ROADWAY CLOSURES INCLUDING FOR PURPOSES OF DELIVERIES SHALL BE COORDINATED WITH THE CITY OF AUBURN PROJECT MANAGER OR THE CITY OF AUBURN RIGHT OR WAY COORDINATOR: TIM YOUNGBLOOD, TYOUNGBLOOD@AUBURNAL.GOV, 334-501-7325. AT LEAST 48 HRS NOTICE SHALL BE PROVIDED TO THE CITY PRIOR TO ANY CLOSURE.

UTILITY NOTES:

1. THE LOCATION OF UNDERGROUND UTILITIES ARE NOT SHOWN. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND TO CONTACT THEIR RESPECTIVE OWNERS BEFORE COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
2. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE NECESSARY UTILITY RELOCATION IF NECASSARY WITH THE RESPECTIVE UTILITY COMPANY. NO ADDITIONAL PROJECT TIME SHALL BE GRANTED FOR DELAYS DUE TO UTILITY RELOCATION.
3. THE CONTRACTOR SHALL CALL ALABAMA ONE CALL AT 811 FOR UTILITY MARKING PRIOR TO COMMENCING CONSTRUCTION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
4. ADJUSTMENTS TO THE POWER SERVICES LINES, IF NECASSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT ALABAMA POWER COMPANY REPRESENTATIVE T.J. PEARSON TO DETERMINE IF ALPCO COORDINATION IS REQUIRED FOR ADJUSTMENTS.
5. THE CONTRACTOR SHALL COORDINATE ALL TIE-INS, CONNECTIONS, OUTAGES AND VALVING OPERATIONS WITH THE UTILITY OWNERS. THE CONTRACTOR SHALL GIVE 72 HOURS NOTICE TO THE UTILITY OWNER OF WHEN SUCH OPERATIONS ARE TO TAKE PLACE.
6. THE CONTRACTOR SHALL COORDINATE WITH AND PROVIDE REASONABLE NOTICE TO RESIDENTS AND BUSINESSES OF UTILITY SERVICE OUTAGES PRIOR TO BEGINNING SUCH OPERATIONS. NO RESIDENT OR BUSINESS SHALL BE LEFT WITHOUT SERVICE OVERNIGHT.
7. NO TRENCH OR EXCAVATION SHALL BE LEFT OPEN OVERNIGHT OR UNATTENTED UNLESS PROPERLY PROTECTED. TRENCHES AND EXCAVATION MUST BE FILLED, FENCED, COVERED OR BARRICADED WHEN UNATTENDED.

Engineering Services
161 N. ROSS STREET
AUBURN, ALABAMA 36830
PHONE: (334) 501-7390
FAX: (334) 501-7294
AUBURN

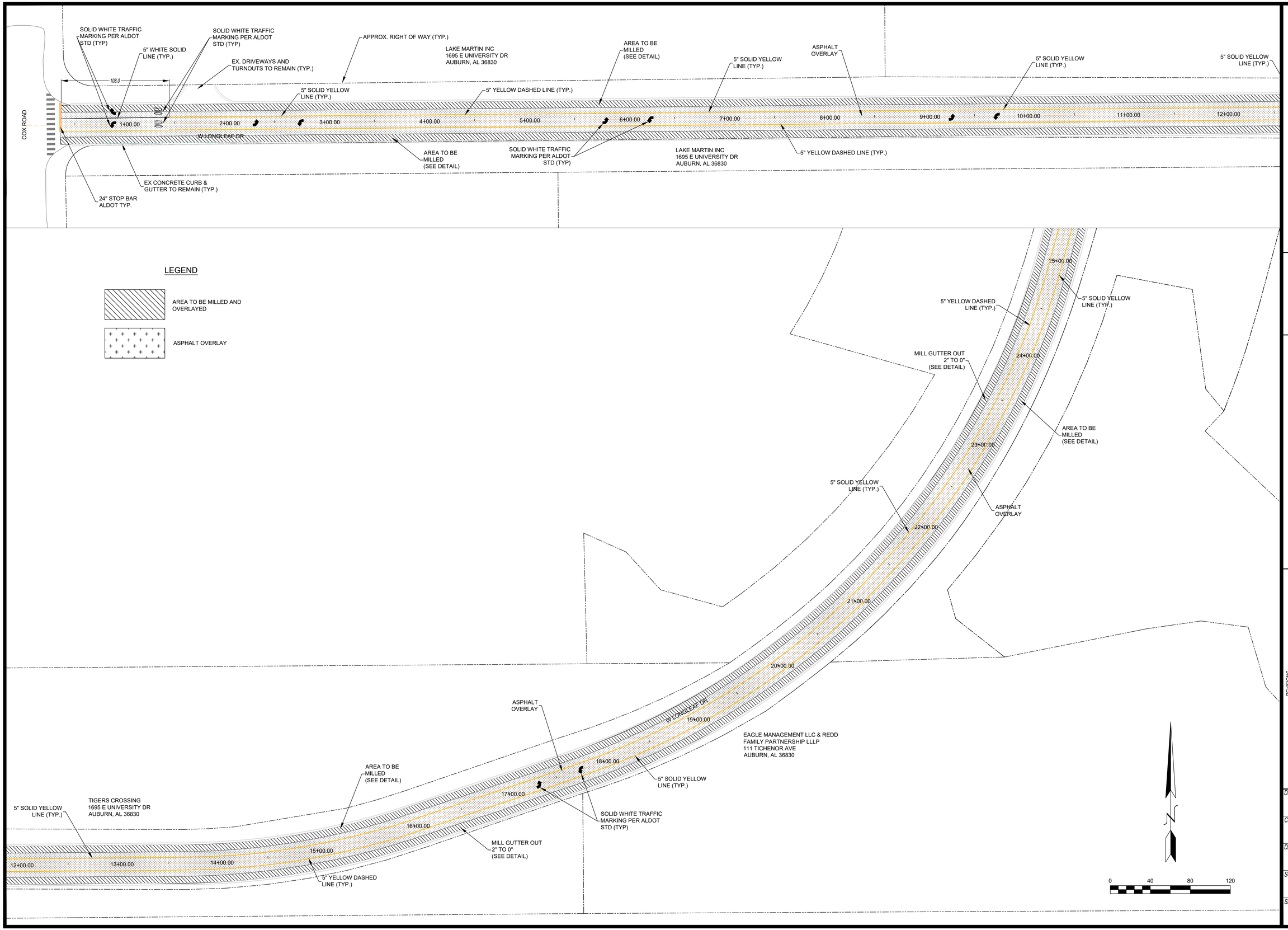
GENERAL NOTES

CITY OF AUBURN
W LONGLEAF REHABILITATION

REVISIONS

NO.	DESCRIPTION	DATE	CHECK

DRAWN: TG
CHECKED: MG
DATE: OCTOBER 2026
SCALE: NTS
SHEET NO.: 2



Engineering Services
161 N. ROSS STREET
AUBURN, ALABAMA 36830
PHONE: (334) 501-7390
FAX: (334) 501-7294

AUBURN

OVERALL LAYOUT

CITY OF AUBURN
W LONGLEAF REHABILITATION

REVISIONS	NO.	CHECK	DATE	DESCRIPTION

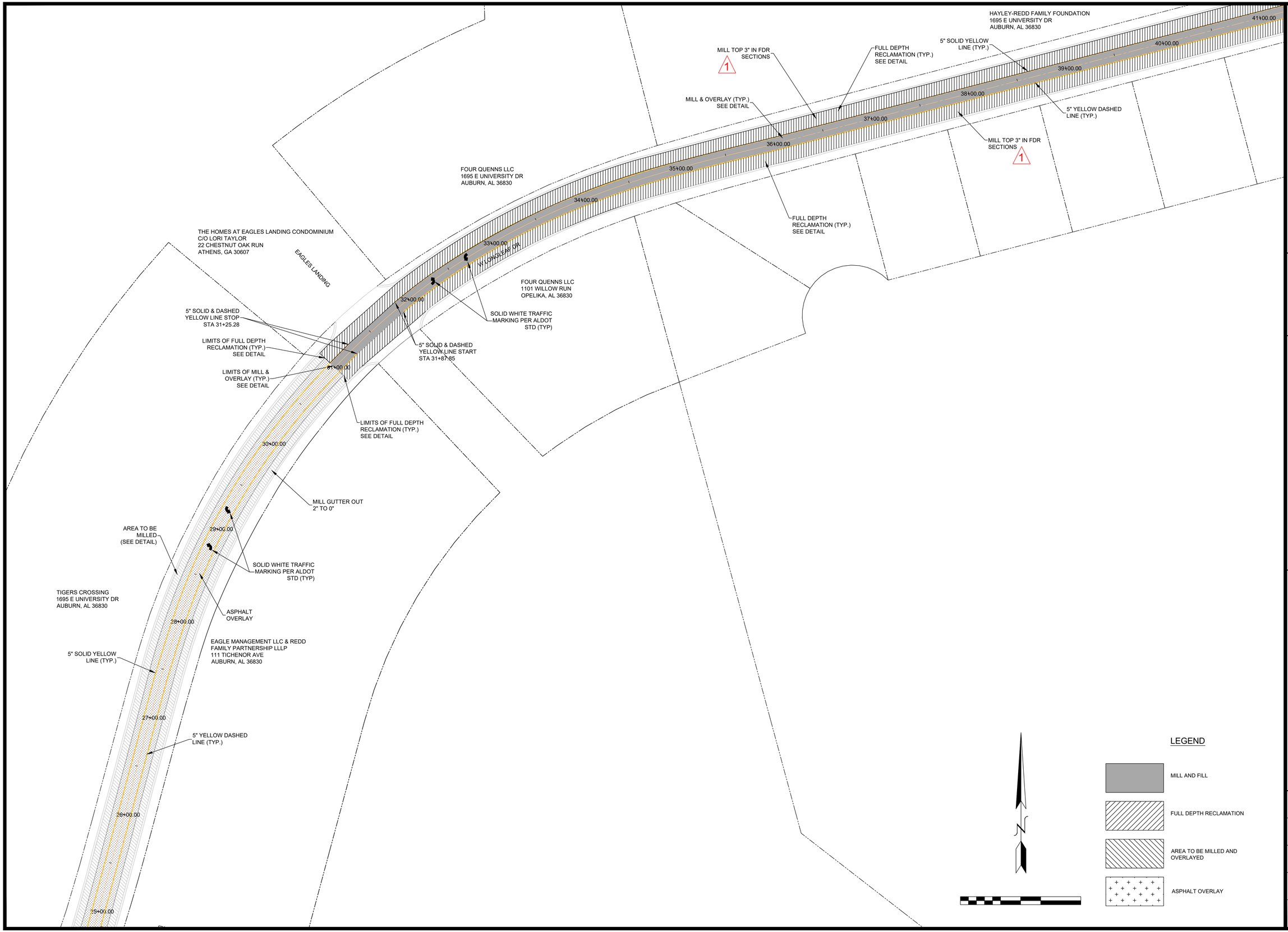
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CHECKED: MG

DATE: OCTOBER 2026

SCALE: 1" = 40'

SHEET NO.: 3



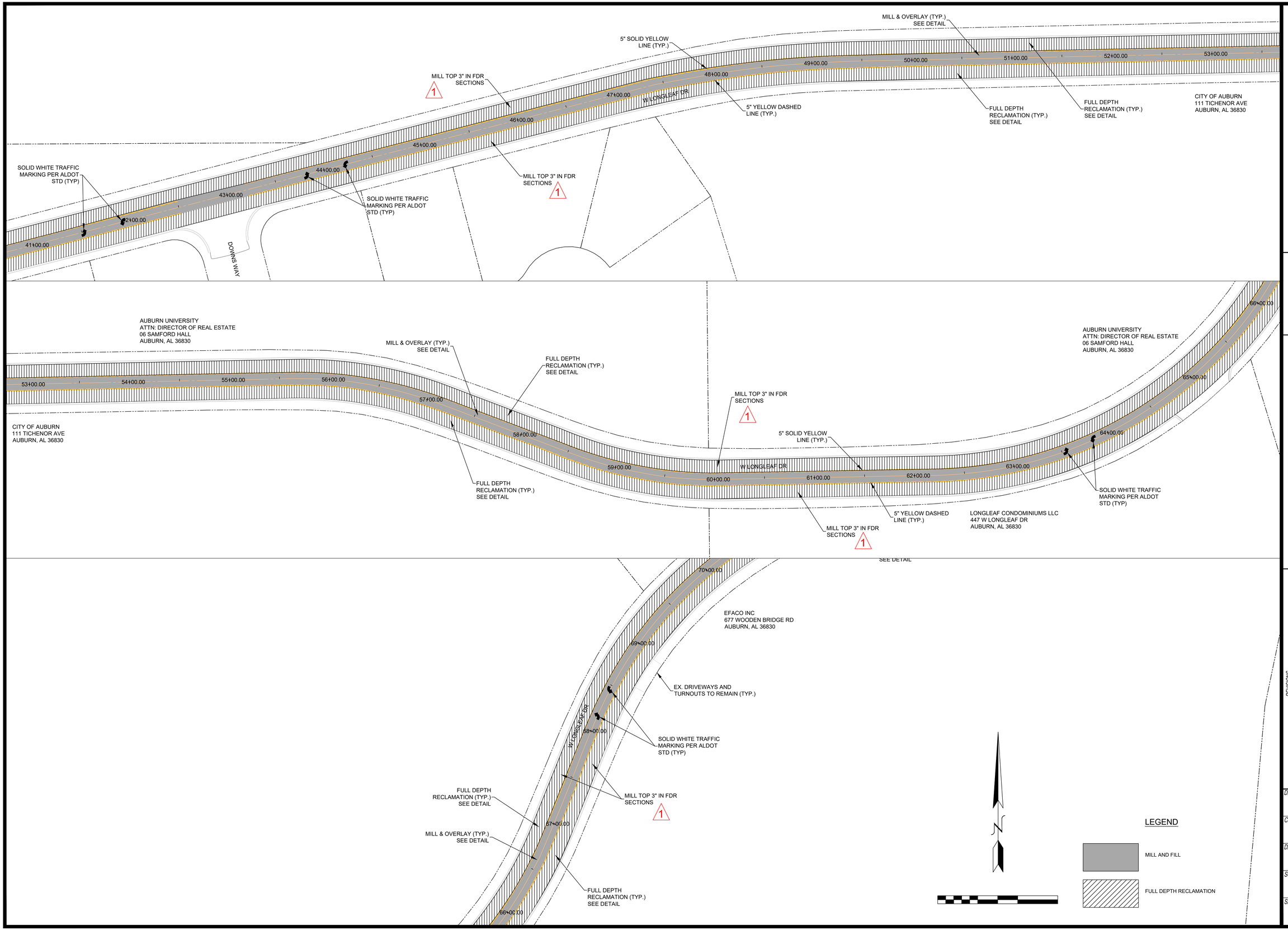
Engineering Services
161 N. ROSS STREET
AUBURN, ALABAMA 36830
PHONE: (334) 501-7390
FAX: (334) 501-7294
AUBURN

OVERALL LAYOUT

CITY OF AUBURN
W LONGLEAF REHABILITATION

REVISIONS			
NO.	CHECK	DATE	DESCRIPTION
1	MG	10/23/26	CHANGED MILLING DEPTH FOR SECTIONS

DRAWN: TG
CHECKED: MG
DATE: OCTOBER 2026
SCALE: 1" = 40'
SHEET NO.: 4



Engineering Services
161 N. ROSS STREET
AUBURN, ALABAMA 36830
PHONE: (334) 501-7390
FAX: (334) 501-7294

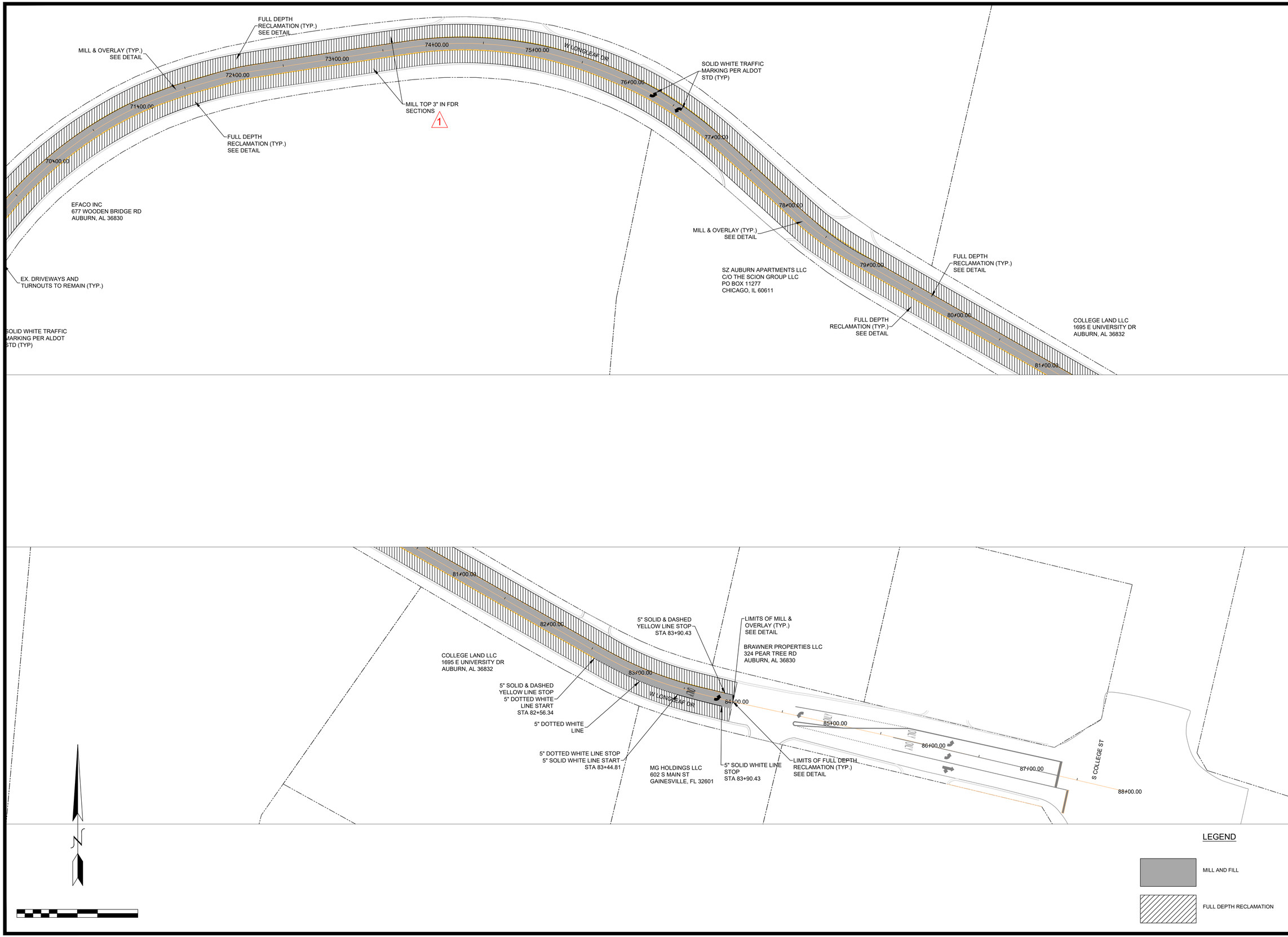
AUBURN

OVERALL LAYOUT

CITY OF AUBURN
W LONGLEAF REHABILITATION

REVISIONS			
NO.	CHECK	DATE	DESCRIPTION
1	MG	10/23/26	CHANGED MILLING DEPTH FOR SECTIONS

DRAWN: TG
CHECKED: MG
DATE: OCTOBER 2026
SCALE: 1" = 40'
SHEET NO.: 5



Engineering Services
161 N. ROSS STREET
AUBURN, ALABAMA 36830
PHONE: (334) 501-7390
FAX: (334) 501-7294

AUBURN

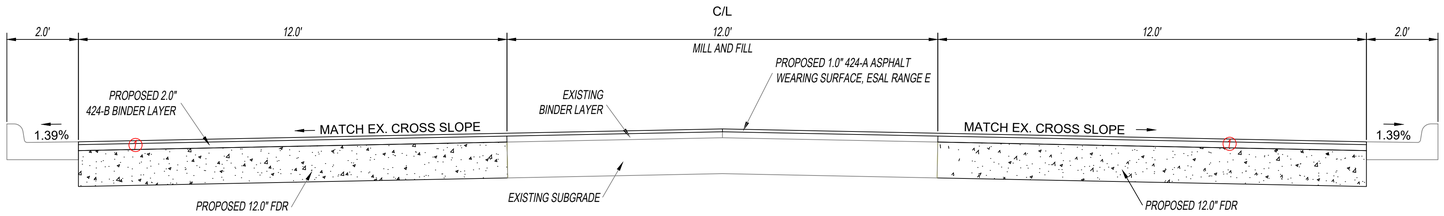
OVERALL LAYOUT

CITY OF AUBURN
W LONGLEAF REHABILITATION

REVISIONS	NO.	CHECK	DATE	DESCRIPTION
	1	MG	10/23/26	CHANGED MILLING DEPTH FOR SECTIONS

DRAWN: TG
CHECKED: MG
DATE: OCTOBER 2026
SCALE: 1" = 40'
SHEET NO.: 6

FDR CROSS SECTION

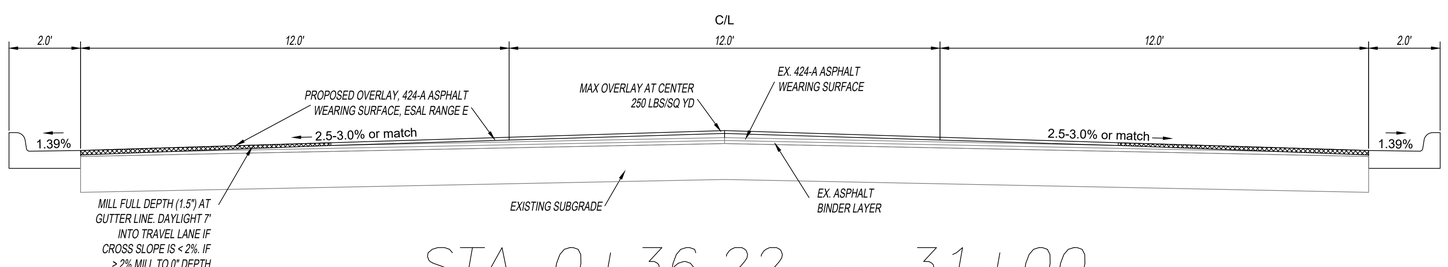


STA 31+00 – 84+00

LEGEND

NO.	ITEM NO.	UNIT	DESCRIPTION
1	408-A-053	SY	PLANING EXISTING PAVEMENT (APPROX. 2.10" THRU 3.0" THICK)

MILL AND OVERLAY SECTION



STA 0+36.22 – 31+00

Engineering Services
161 N. ROSS STREET
AUBURN, ALABAMA 36830
PHONE: (334) 501-7390
FAX: (334) 501-7294

AUBURN

DETAILS

CITY OF AUBURN
W LONGLEAF REHABILITATION

REVISIONS			
NO.	CHECK	DATE	DESCRIPTION
1	MG	10/23/26	CHANGED MILLING DEPTH FOR SECTIONS

DRAWN: LK
CHECKED: MG
DATE: OCTOBER 2026
SCALE: NTS
SHEET NO.: 7

APPENDIX B. SUBSURFACE EXPLORATION & PAVEMENT EVALUATIONS FOR WEST LONGLEAF REHABILITATION PROJECT

Subsurface Exploration and Pavement Evaluation

West Longleaf Drive
From Eagles Landing to South College Street
Auburn, Alabama

April 10, 2026

Prepared For:
Mr. Justin Foster
City of Auburn Engineering Services
171 N. Ross Street
Auburn, Alabama 36830

Prepared By:
ACAI Construction Testing, LLC
6053 Stage Road
Auburn, Alabama 36832
334-521-5320
www.acaiconstruction.com

April 10, 2026

Mr. Justin Foster
City of Auburn Engineering Services
171 N. Ross Street
Auburn, AL 36830

Re: Subsurface Exploration and Pavement Evaluation
West Longleaf Drive Rehabilitation from Eagles Landing to South College Street
Auburn, AL

Dear Mr. Foster,

ACAI Construction Testing, LLC (ACAI) has completed the requested geotechnical subsurface exploration and pavement evaluation for the above-mentioned project in Auburn, Alabama. Our services were provided in general accordance with our proposal entitled *Proposal for Subsurface Exploration and Pavement Evaluation West Longleaf Drive Rehabilitation from Eagles Landing to South College Street*, dated February 20, 2026.

Scope
The intent of this evaluation is to determine existing asphalt, base and subgrade characteristics at specific boring locations and develop pavement recommendations for rehabilitation and resurfacing of the subject roadway. The proposed scope of work included the following:

- An engineering site reconnaissance and distress survey to identify the type, extent and severity of existing distress, utilizing the FHWA Distress Identification Manual for the Long-Term Pavement Performance Program (PUBLICATION NO. FHWA-HRT-13-092 Revised May 2014).
- Coring of the existing asphalt pavement to determine in-place asphalt thickness and base material type and thickness. Twelve (12) cores will be obtained along four (4) individual cross sections.
- Subsurface exploration and soil evaluation for West Longleaf Drive Rehabilitation. Evaluation will consist of twelve (12) borings to 5 ft below the roadway surface.
- Laboratory soil classification testing to include four (4) particle size distribution tests and four (4) Atterberg Limits tests.
- Full report of results to be submitted to client upon completion of the project. The report will address site conditions, subsurface conditions encountered at the core/boring locations, laboratory test results, and recommended rehabilitation method(s) for West Longleaf Drive including alternatives such as mill/overlay, full-depth reclamation and reconstruction. Pavement section(s) design will be performed in general accordance with the Alabama Department of Transportation (ALDOT) pavement thickness design software, ADAPT (Alabama Design & Analysis of Pavement Thickness).

The owner has identified full-depth reclamation (FDR) and mill/overlay options as remediation alternatives for consideration for the proposed rehabilitation of the roadway.

Upon field observations of the roadway, several changes were made to the original scope of field and laboratory work. The roadway appears to show significant distress in low-lying areas where water is present beside and possibly underneath the roadway; however, the increase in traffic loading from new development presents a potential contributing factor for the apparent distress of the pavement. The intent of this report is to identify the distress mechanism responsible for the inadequate conditions of the roadway and develop recommendations for remediation and rehabilitation of the roadway.

In order to evaluate if saturated conditions are present underneath the roadway's subgrade material, moisture content testing was added to the scope of work. Moisture content determination of the underlying material eliminates wet-coring opportunities. The asphalt core sampling was reduced to the center lane of each cross-section, allowing moisture content testing to be performed in each travel lane of the cross-sections. In total, the asphalt cores were reduced from twelve (12) cores to four (4) cores, and twenty-eight (28) moisture content determinations were added to the laboratory testing. Also, in order to further determine the effect of possible subgrade saturation, four (4) of the twelve (12) borings were drilled to 10 ft below the roadway surface. Each cross-section contained an asphalt core, a 5 ft boring and a 10 ft boring.

Four (4) additional asphalt pavement cores were obtained along the roadway in an area of concern to identify asphalt pavement thicknesses for mill/overlay concerns. Pavement thickness is critical in determining mill/overlay options when limited by base depth and curb and gutter elevations.

Site Description

The project consists of rehabilitating approximately 1 mile of West Longleaf Drive from Eagles Landing to South College Street in Auburn, Alabama. Based on a site visit performed on March 6, 2026, the roadway consists of three lanes with curb-and-gutter. The roadway is surfaced with asphalt that exhibits significant distress. The proposed rehabilitation of the roadway will maintain the existing alignment, grades and roadway width.

Pavement Distress Survey

A pavement distress survey of the existing pavement was performed on March 6, 2026, in general accordance with the FHWA Distress Identification Manual for the Long-Term Pavement Performance Program (PUBLICATION NO. FHWA-HRT-13-092 Revised May 2014). The project location is divided into four areas in order to further investigate subsurface concerns and remediation methods. The areas of concern are labeled as:

- Eagles Landing to Downs Way (~1200')
- Downs Way to AU Equestrian Center (~1250')

- AU Equestrian Center to Samford Square (~1900')
- Samford Square to South College Street (~1225')

In general, the asphalt pavement exhibited areas of moderate to severe distress that corresponded to the pavement's evident age and usage. The increase in traffic loading from new development that was not considered at the time of construction may have provided a probable cause of distress to the pavement. The roadway appears to show significant distress in low-lying areas where water is present beside and possibly underneath the roadway.

The travel lanes of the pavement exhibited locations of significant fatigue (or alligator) cracking and distress throughout the length of the project. Fatigue cracking is a primary, progressive structural failure that occurs in areas subjected to repeated traffic loadings. Failure from fatigue cracking generally occurs from inadequate support from base layers and/or repeated loadings exceeding the design life of the pavement.

Several areas of patching were observed throughout the project location. The patches exhibited minor to severe distress. Moderate to severe fatigue cracking was observed at the transverse as well as the longitudinal edges of the patching.

A summary of each area is provided below.

<u>Eagles Landing to Downs Way</u>
The following pictures show some of the observed distresses at the time of the fieldwork.



L-R: Slight longitudinal cracking, low severity fatigue cracking, and transverse, longitudinal, and fatigue cracking.

The existing asphalt pavement exhibited low to moderate-severity pavement distress. The pavement showed low-severity longitudinal cracks in this area along with low to moderate transverse and fatigue cracking. Some cracks were previously sealed with crack sealant.

Downs Way to AU Equestrian Center

The following pictures show some of the observed distresses at the time of the fieldwork.



L-R: Severe fatigue cracking and patching, severe fatigue cracking, and longitudinal and fatigue cracking with moderate patching.

The existing asphalt pavement contains areas of longitudinal, transverse, and fatigue cracking. The pavement showed moderate to high-severity longitudinal cracks in this area along with moderate transverse and moderate to high-severity fatigue cracking. Areas of advanced fatigue cracking were observed primarily along the wheel paths. Some cracks were previously sealed with crack sealant. Significant patching was observed, where previous utility work and repair have been performed. Patching was in advanced stages of distress throughout the area being investigated.

AU Equestrian Center to Samford Square

The following pictures show some of the observed distresses at the time of the fieldwork.



L-R: Moderate longitudinal cracking with severe fatigue cracking, high-severity fatigue cracking and patching, and moderate block cracking.

The roadway appears to show significant distress in low-lying areas where water is present beside and possibly underneath the roadway. The existing asphalt pavement contains areas of block, longitudinal, transverse, and fatigue cracking. The pavement showed low to moderate-severity longitudinal cracks in this area along with high-severity fatigue cracking. Areas of advanced fatigue cracking were observed primarily along the wheel paths. Moderate block cracking was observed in the area of pavement. Some cracks were previously sealed with crack sealant.

Patching was observed primarily at the overpass of Parkerson Mill Creek where repairs and utility work had been performed. Patches exhibited moderate to severe distress including raveling from cold patch material and rutting and pumping in some areas.

Fatigue cracking was primarily observed in the wheel paths and was generally moderate to high in severity. Longitudinal and transverse cracking were generally low to moderate in severity.

Samford Square to South College Street

The following pictures show some of the observed distresses at the time of the fieldwork.



L-R: High-severity patching, high-severity patching, and moderate longitudinal, and fatigue cracking with moderate patching.

The existing asphalt pavement contains areas of longitudinal, transverse, and fatigue cracking. The pavement showed moderate to high-severity longitudinal cracks in this area along with moderate transverse and moderate to high-severity fatigue cracking. Areas of advanced fatigue cracking were observed primarily along the wheel paths. Some cracks were previously sealed with crack sealant.

Significant patching was observed, where previous utility work and repair have been performed. Some patching was in advanced stages of distress throughout the area being investigated. Some patching appeared to be recent repair work.

Existing Pavement and Base Sections

Four (4) asphalt pavement cores were obtained along the roadway to evaluate the existing asphalt and base material type and thickness. Cores were performed at each of the 4 cross-sections in the center lane. The cross-sections were spaced at locations designated as areas of concern throughout the project length. The approximate core locations are indicated on the attached Boring Location Plans. Crushed aggregate base materials with an average thickness of 6.0” were encountered in the borings. Based on the boring data, it appears that the asphalt thickness ranges from 4.4” thickness at the Parkerson Mill Creek bridge to 6.8” thickness at the western project limit.

Four (4) additional asphalt pavement cores were obtained along the roadway to determine the existing asphalt and base material type and thickness. These supplemental cores were taken in the area from the bridge at Parkerson Mill Creek to the new pavement

joint at the South College Street Intersection. The core data was used to identify asphalt pavement thickness with respect to the cores taken at B-8 and B-11. The data from the additional cores corelates with the core data from B-8 and B-11 with asphalt thicknesses ranging from 4.1" to 4.7" thickness.

Structural numbers (SN) associated with the existing asphalt and base thicknesses were determined at the individual bore and core locations. The calculations were based on a structural coefficient of 0.35 for existing asphalt and 0.14 for aggregate base. The following table provides details of the core results and structural number calculations.

Core Results and Existing SN Calculations				
Core Location	**Wearing Thickness, in.**	**Asphalt Thickness, in.**	**Aggregate Base Thickness, in.**	**Existing Structural Number**
B-2	2.5	6.8	6.0	3.22
B-5	2.8	5.3	6.0	2.70
B-8	2.0	4.4	6.0	2.38
B-11	1.1	4.7	6.0	2.49
C-1	1.5	4.1	6.0	2.28
C-2	1.5	4.7	6.0	2.49
C-3	1.0	4.2	6.0	2.31
C-4	0.8	4.4	5.5	2.31
Averages	**1.7**	**4.8**	**5.9**	**2.52**

Based on the existing buildup, this roadway appears to have been constructed to meet the City of Auburn requirements for a Class III roadway. However, the data provided indicates that this buildup meets Class II requirements. A Class II roadway is defined as a local residential, with traffic volumes of 0 to 2,000 vehicles per day. The City of Auburn Street Buildup Specification is provided below:

STREET BUILDUP						
	0 TO 2,000 VPD		2,001 TO 5,000 VPD		5,001 AND GREATER	
CLASSIFICATION	ALLEY/CUL-DE-SAC LOCAL RESIDENTIAL		RESIDENTIAL COLLECTOR		COLLECTOR/ARTERIAL LOCAL COMMERCIAL	
	CLASS II		CLASS III		CLASS IV	
	FULL DEPTH	ASPHALT/BASE	FULL DEPTH	ASPHALT/BASE	FULL DEPTH	ASPHALT/BASE
WEARING SURFACE (424A)	1"	1"	2"	1"	2"	1"
BINDER (424B) OR BASE (424C)	*4"	2"	*5"	*4"	*6"	*4"
CRUSHED AGGREGATE BASE 825B		6"		6"		*9"

NOTES: MIXES SHALL COMPLY WITH THE LATEST EDITION OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
* BINDER OR BASE LAYER TO BE PLACED IN TWO EQUAL LIFTS.

It appears the roadway in its existing buildup and condition is not capable of providing the strength and structural integrity necessary to withstand the amount of current traffic

loading. The roadway appears to be underbuilt for the current traffic volume, and near the end of its service life.

Subsurface Conditions

Borings extended to termination depths of 5 ft and 10 ft. Borings B-6 and B-12 hit auger refusal at 8.5 ft. and 9.5 ft, respectively. Details of the conditions encountered at the boring locations are provided on the attached Boring Logs. The bore locations and elevations in the attached Boring Location Plan should be considered approximate.

The asphalt thickness at the core locations ranged from 4.4” to 6.8” in thickness. The aggregate base thickness at each core location is approximately 6.0” in thickness. Underlying the asphalt and base material, the subgrade evaluated was made up of mainly silty sand (SM), sandy silt (ML) and clayey sand (SC). Subgrade material included loose to very dense sands (non-cohesive) with clays ranging from stiff to hard (cohesive) consistency. Standard Penetration Test (SPT) N-values ranged from 5 to 75 blows per foot (bpf), revealing loose to dense/very dense subgrade conditions.

Laboratory testing and analysis of selected samples provided natural moisture content ranging from 7.5% to 25.7%. The tested soil samples presented a moderate degree of plasticity with Liquid Limit (LL) values ranging from 26 to 48 and Plasticity Index (PI) values ranging from 9 to 17. The samples contained between 28.1% and 56.3% fine-grained (silt and clay size) particles. The tested soil samples are classified based on USCS guidelines as silty sand (SM), sandy silt (ML) and clayey sand (SC) and are classified based on AASHTO guidelines as A-2-5, A-7-5, and A-2-6 materials.

A summary of each area is provided below.

<u>Eagles Landing to Downs Way</u>

The asphalt thickness at the core location in this area is 6.8”. Underlying the asphalt and base, borings identified what appears to be previously-placed fill composed of silty sand and sandy silt. The samples tested for natural moisture content in this location ranged from 14.1% to 25.7%. The tested soil sample presented a moderate degree of plasticity with a Liquid Limit (LL) value of 42 and Plasticity Index (PI) value of 9. The sample contained 28.1% fine-grained (silt and clay size) particles. The tested soil sample is classified based on USCS guidelines as silty sand (SM) and is classified based on AASHTO guidelines as A-2-5 material.

Standard Penetration Test (SPT) N-values ranged from 14 to 50 blows per foot (bpf), revealing firm to dense/very dense subgrade conditions. The borings at this cross-section generally encountered silty sand materials underlying the asphalt and base.

<u>Downs Way to AU Equestrian Center</u>

The asphalt thickness at the core location in this area is 5.3”. Underlying the asphalt and base, borings identified what appears to be previously-placed fill composed of silty sand and sandy silt. The samples tested for natural moisture content in this location ranged

from 7.5% to 25.4%. The tested soil sample presented a moderate degree of plasticity with a Liquid Limit (LL) value of 48 and Plasticity Index (PI) value of 17. The sample contained 56.3% fine-grained (silt and clay size) particles. The tested soil sample is classified based on USCS guidelines as sandy silt (ML) and is classified based on AASHTO guidelines as A-7-5 material.

Standard Penetration Test (SPT) N-values ranged from 5 to 75 blows per foot (bpf), revealing loose to hard/very dense subgrade conditions. The borings at this cross-section generally encountered silty sand materials underlying the asphalt and base.

AU Equestrian Center to Samford Square

The asphalt thickness at the core location in this area is 4.4". Underlying the asphalt and base, borings identified what appears to be previously-placed fill composed of silty sand and clayey sand. The samples tested for natural moisture content in this location ranged from 9.5% to 17.9%. The tested soil sample presented a moderate degree of plasticity with a Liquid Limit (LL) value of 26 and Plasticity Index (PI) value of 13. The sample contained 24.9% fine-grained (silt and clay size) particles. The tested soil sample is classified based on USCS guidelines as clayey sand (SC) and is classified based on AASHTO guidelines as A-2-6 material.

Standard Penetration Test (SPT) N-values ranged from 8 to 25 blows per foot (bpf), revealing loose to medium dense/very firm subgrade conditions. The borings at this cross-section generally encountered clayey sand materials underlying the asphalt and base.

Initial concerns of base failure from increased moisture levels underneath the pavement at Parkerson Mill Creek were resolved as moisture contents and N-values in this area were consistent with firm subgrade conditions. Additional asphalt pavement cores were obtained in the area, and that core data corelates with the core data from B-8 and B-11 with asphalt thicknesses ranging from 4.1" to 4.7" thickness. This information suggests that the pavement buildup of the existing road does not meet the requirements necessary for the current amount of traffic loading on the roadway.

Samford Square to South College Street

The asphalt thickness at the core location in this area is 4.7". Underlying the asphalt and base, borings identified what appears to be previously-placed fill composed of silty sand and clayey sand. The samples tested for natural moisture content in this location ranged from 10.6% to 18.7%. The tested soil sample presented a moderate degree of plasticity with a Liquid Limit (LL) value of 6 and Plasticity Index (PI) value of 16. The sample contained 30.9% fine-grained (silt and clay size) particles. The tested soil sample is classified based on USCS guidelines as clayey sand (SC) and is classified based on AASHTO guidelines as A-2-6 material.

Standard Penetration Test (SPT) N-values ranged from 9 to 24 blows per foot (bpf), revealing loose to medium dense/very firm subgrade conditions. The borings at this cross-section generally encountered clayey sand materials underlying the asphalt and base.

Initial concerns of base failure from increased moisture levels underneath the pavement between the east entrance and main entrance to Samford Square were resolved as moisture contents and N-values in this area were consistent with firm subgrade conditions. Asphalt pavement core C-4 was obtained in this area, and the core data is consistent with the core data from B-11 with an asphalt thickness of 4.4" and an aggregate base thickness of 5.5". This information suggests that the pavement buildup of the existing road does not meet the requirements necessary for the current amount of traffic loading on the roadway.

Groundwater was not encountered in the borings at the time of excavation. The borings were backfilled and topped with 4-6 inches of compacted asphaltic cold patch at each bore and core location upon completion.

Recommendations for Flexible Pavement Rehabilitation

Flexible pavement design was determined by utilizing ALDOT's ADAPT (Alabama Design & Analysis of Pavement Thickness) software program, developed by Auburn University's Highway Research Center. This program provides pavement thickness design recommendations for a new flexible pavement design or an overlay to an existing flexible pavement.

Traffic data was provided by the City of Auburn in an email dated March 2, 2026. The roadway is to be designed using a 2026 ADT for West Longleaf Drive of 10,000 vehicles per day with an assumed 5% trucks, and an assumed 2% growth rate.

ESAL ratings were calculated using the ADAPT software. Specific data input for the project included a performance period of 12 years and a subgrade modulus of 5,500 psi. The 18-kip ESAL values for the traffic loading provided are 1,240,123 ESALs (283 ESALs/day). The ADAPT software uses the following parameters for ESAL calculations:

- Reliability is 90% for New Design, and 85% for Overlay,
- The Standard Deviation is 0.49,
- The Standard Normal Deviate is -1.282 for New Design, and -1.036 for Overlay,
- Initial and Terminal Serviceability are 4.2 and 3.0, respectively, and
- The Design Structural Number is **4.53** for New Design, and **4.37** for Overlay.

An ESAL range C/D is recommended for the design for the binder layer and an ESAL rating of E is recommended for the wearing surface layer.

The existing buildup for this roadway meets the City of Auburn requirements for a Class II roadway. A Class II roadway is defined as a local residential, with traffic volumes of 0 to 2,000 vehicles per day. The current traffic data suggests 10,000 vehicles per day. Therefore, the roadway in its existing buildup and condition is not capable of providing the strength and structural integrity necessary to support the amount of current traffic

loading. The roadway is underbuilt for the current traffic volume and near the end of its service life. A Class IV roadway is required for the current traffic volumes for the roadway.

The engineering site reconnaissance and distress survey identified the severity of distress of the pavement. Based upon the pavement conditions throughout the project limits, the options for FDR and mill/overlay remediation were determined and mapped by the severity of the distress.

The area from Down's Way to the east entrance of Samford Square were identified with distress levels ranging from moderate to high in severity, suitable conditions for FDR remediation. The area from just east of the Parkerson Mill Creek bridge to just west of Samford Square that is recommended to be rehabilitated by FDR showed moderate distress that could possibly be considered for mill and overlay remediation. Mill and overlay remediation is more economical than FDR with respect to construction practices. However, mill and overlay remediation does not provide any additional base stabilization and only replaces old pavement with new pavement.

Core data in these areas show asphalt thickness ranging from 4.1" to 4.7" in thickness. In order to meet the City of Auburn requirements for 10,000 vehicles per day, the roadway must have 9" of aggregate base followed by 5" of asphalt pavement. Pavement thickness is critical in determining mill/overlay options when limited by base depth and curb and gutter elevations. Initial endorsements for mill and overlay remediation in this area have been proven unsuccessful with regards to existing pavement thickness and lack of opportunity to increase pavement thickness due to underlying base and curb and gutter elevation limitations.

The area from Eagles Landing to Down's Way showed low to moderate severity of distress and appeared to be suitable for mill and overlay remediation. Although existing asphalt pavement thickness was 6.8" in this area, mill and overlay remediation is ineffective at providing the necessary buildup to meet Class IV requirements.

The area from the east entrance of Samford Square to South College street also appeared to show low-severity distress levels. Initial consideration for mill and overlay remediation in this area have been proven unsuccessful with regards to existing pavement thickness of 4.4" and lack of opportunity to increase pavement thickness due to underlying base and curb and gutter elevation limitations.

Based upon the results of the pavement evaluation and the severity of distress of the pavement, it is recommended that rehabilitation utilizing FDR be used from Eagles Landing to the South College Street Intersection.

Pavement Thickness Design

The new pavement sections for West Longleaf Drive were designed in general accordance with the Alabama Department of Transportation (ALDOT) pavement thickness design software, ADAPT (Alabama Design & Analysis of Pavement Thickness). The

following structural coefficients are used by the ADAPT software for flexible pavement thickness design.

ADAPT SN Coefficients	
Material	**Structural Coefficient**
Crushed Aggregate Base	0.14
Stabilized Base (FDR)	0.25
Existing Asphalt	0.35
New Asphalt	0.54

The pavement design information is attached at the end of this report.

New Pavement Section Using FDR

As requested by the owner, a full-depth reclamation (FDR) option is considered as a remediation alternative for the proposed rehabilitation of the roadway. FDR construction methods eliminate the depth limitations of existing base and allow for the required pavement buildup to be constructed in accordance with the curb and gutter elevation limitations. The recommended pavement section alternative utilizing FDR is provided below.

New Pavement Typical Section – FDR				
Description	**Placement Rate (lbs/sy)**	**Thickness (in.)**	**Structural Coefficient**	**Structural Number**
½" Wearing Surface Layer, ESAL Range E	110	1.0	0.54	0.54
3/4" Binder Layer, ESAL Range C/D	220	2.0	0.54	1.08
FDR	-	12.0	0.25	3.00
			Typical Section Structural Number:	**4.62**

The Design Structural Number is **4.53** for New Design (FDR). The existing asphalt thickness ranged from 4.1-6.8" at the bore locations. Due to the variation in thickness of the asphalt, the initial step in constructing the FDR layer will be to mill and remove the upper approximately 3" of asphalt. Upon completion of initial milling, the FDR layer shall be constructed by mixing the cement, asphalt, base, and soil to a depth of 12 inches below the milled pavement surface. If additional milling is required, it is recommended that the additional millings be kept in place prior to mixing. It may be necessary to adjust the initial milling and/or FDR blending depths to match adjacent gutter grades and/or if asphalt thicknesses vary from that encountered at the test location. It should be noted that construction materials and practices should be in accordance with the latest editions of the Alabama Department of Transportation Standard Specifications for Highway Construction.

A G-treatment layer may be placed on the FDR surface prior to the placement of asphalt binder. A G-treatment layer will help to protect the FDR surface from traffic during construction sequencing from FDR construction to asphalt binder placement. It may also help to improve the friction coefficient between the FDR base and asphalt binder and could help to reduce any reflective cracking concerns during the service life of the pavement.

An FDR mix design should be performed prior to construction in cooperation with the selected contractor. Through empirical observation in the project area, a cement content spread rate of 55-65 pounds per square yard (psy) is typically sufficient for the 12-inch FDR layer. However, a laboratory mix design will ensure that the proper amount of cement is applied and will help to confirm that the cement application is not under- or over-designed.

Pay item quantities for FDR are expected to include approximately 25,100 SY of Full Depth Reclamation and would include from 690 to 820 tons of Portland cement.

New Pavement Section Using Mill/Overlay

Although requested by the owner, a mill and overlay option is **insufficient** as a remediation alternative for the proposed rehabilitation of the roadway. Required increases in design pavement thickness are unable to be constructed due to the limitations of existing base and curb and gutter elevations.

An **example design** using the asphalt thickness of 6.8” found in the Eagles Landing to Down’s Way area, and utilizing a milling depth of 4” provides a structural number of **3.98**, which **does not meet** the required design structural number of **4.37** for mill and overlay construction. The **insufficient** pavement section alternative utilizing mill and overlay construction methods is shown below.

Insufficient Typical Section – Mill/Overlay				
Description	**Placement Rate (lbs/sy)**	**Thickness (in.)**	**Structural Coefficient**	**Structural Number**
½” Wearing Surface Layer, ESAL Range E	110	1.0	0.54	0.54
3/4” Binder Layer, ESAL Range C/D	220	3.0	0.54	1.62
Planing	-	4.0	-	-
Existing 3/4” Binder Layer, ESAL Range A/B	-	2.8	0.35	0.98
Existing Type B, Section 825 Aggregate Base	-	6.0	0.14	0.84
			Typical Section Structural Number:	**3.98**

Construction Monitoring and Observations
ACAI would certainly appreciate the opportunity to continue to provide geotechnical consultation and construction monitoring for future endeavors related to this project.

Closing
Data was drilled, and collected by Nichols Environmental Consulting, LLC (NEC, LLC), while under the general supervision of ACAI. Laboratory testing and calculations generated by ACAI. Cursory review of field applications and data accompanying this report were reviewed by the ACAI staff and recommendations for specific criteria relating to soil conditions, foundation recommendations and engineering principles are reviewed by and solely determined by ACAI Construction Testing, LLC.

This report has been prepared for the City of Auburn Engineering Services for specific application to the **West Longleaf Drive Rehabilitation from Eagles Landing to South College Street** project in Auburn, Alabama. This report is intended for use on the stated project and should not be used for other purposes. This report is not transferable to a third party.

This report has been prepared in accordance with currently accepted standards of geotechnical engineering principles and practices, and no other warranties are expressed or implied. The recommendations of this report are based on our professional judgment and understanding of the proposed construction and the data available to us. ACAI must be informed of any changes made to the scope of the project and allowed to review those changes to provide revisions (if necessary) to the recommendations provided in this report.

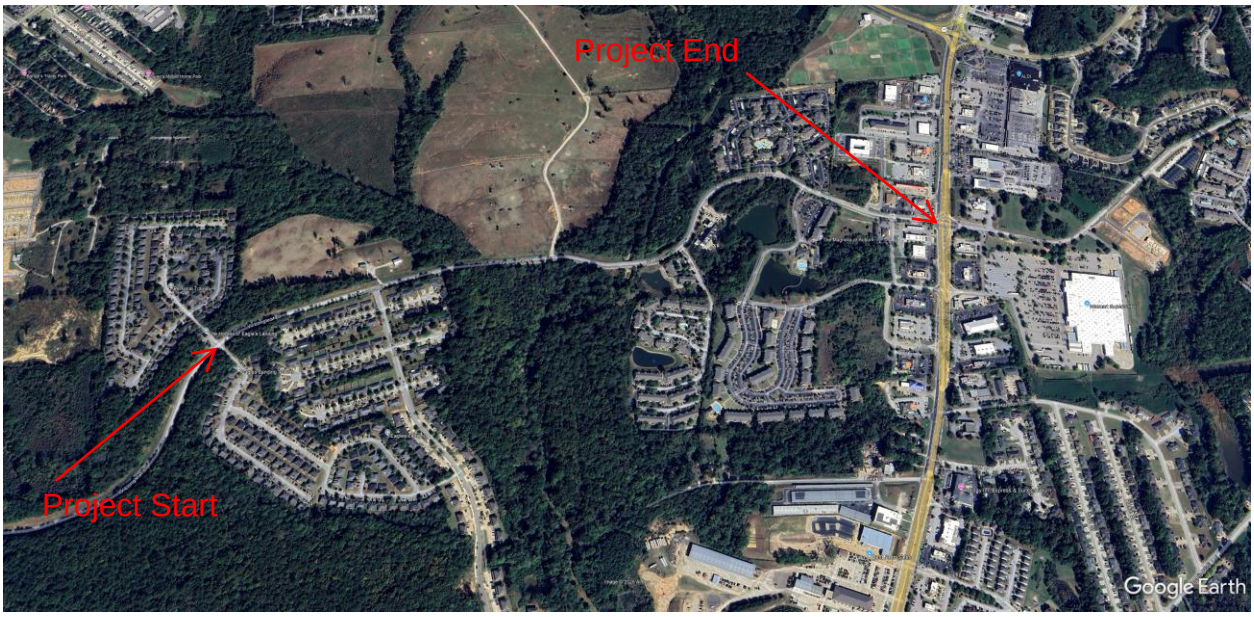
Thank you for selecting ACAI to provide the geotechnical services for this project. If we can be of any further assistance, please contact our office.

Respectfully Submitted,
ACAI Construction Testing, LLC

Billy Wilson, PE
Senior Geotechnical Engineer



Attachments:
- Site Vicinity Map
- Boring Location Plan
- Coring Location Plan
- Boring Logs
- Laboratory Test Data
- Pavement Design Analysis Data



Site Vicinity Map
Eagles Landing to South College Street
West Longleaf Drive
Auburn, Alabama



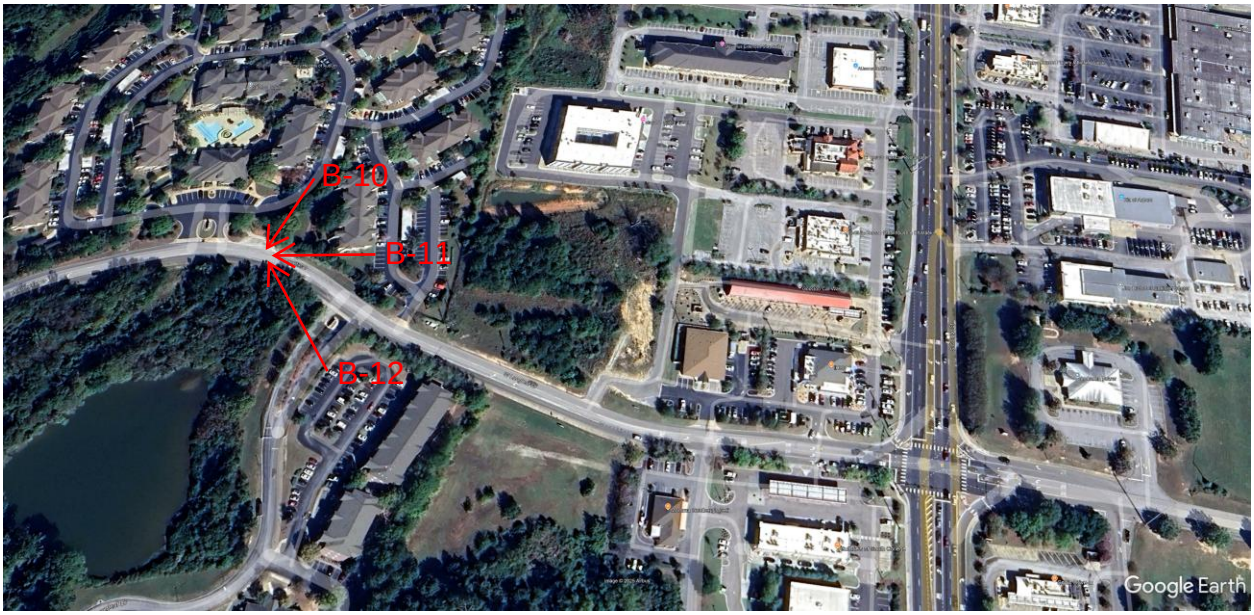
Boring Location Plan
Eagles Landing to Down's Way
West Longleaf Drive
Auburn, Alabama



Boring Location Plan
Down's Way to AU Equestrian Center
West Longleaf Drive
Auburn, Alabama



Boring Location Plan
AU Equestrian Center to Samford Square
West Longleaf Drive
Auburn, Alabama



Boring Location Plan
Samford Square to South College Street
West Longleaf Drive
Auburn, Alabama

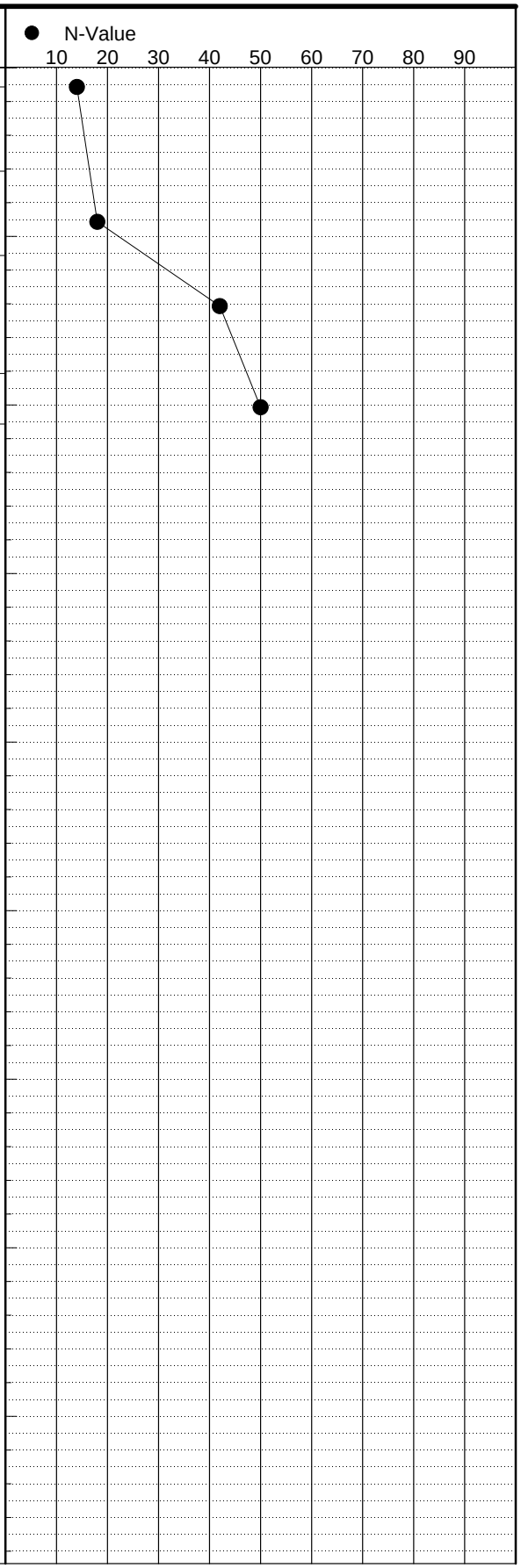


Coring Location Plan
AU Equestrian Center to South College Street
West Longleaf Drive
Auburn, Alabama

ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 579
Latitude: N32°34.338 | Longitude: W85°30.841
Bore: B-1 | Bore Date: 3/13/2026
Drilled By: SC
Water after 24hr (ft): | Cave Depth (ft):

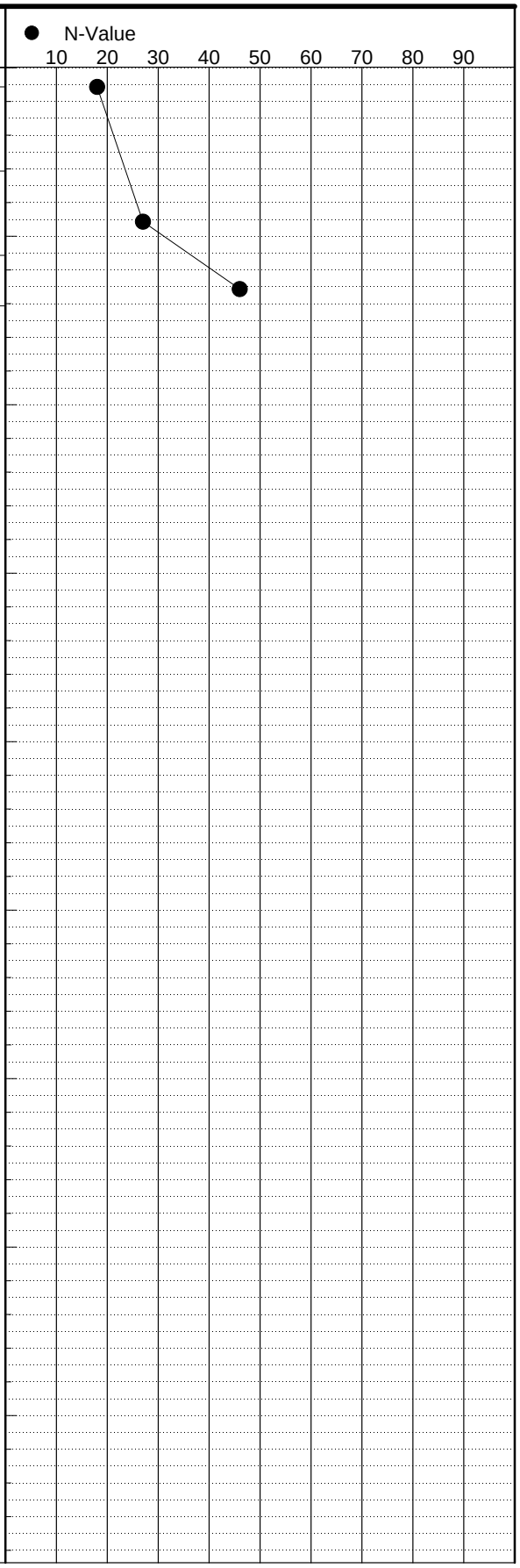
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0	6.8" of Asphalt			
	6" of Crushed Aggregate Base Red Silty Sand: Medium Dense		9 5 9	24.7
575	Brown Silty Sand: Medium Dense		3 8 10	15.0
5				
	Red Clayey Sand: Dense		11 15 27	16.4
570				
10	Red Brown Clayey Sand: Very Dense		23 50	14.1
	Boring Terminated at 10.567 ft.			
565				
15				
560				
20				
555				
25				
550				
30				
545				
35				
540				
40				
535				



ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 580
Latitude: N32°34.334 | Longitude: W85°30.835
Bore: B-2 | Bore Date: 3/10/2026
Drilled By: SC
Water after 24hr (ft): | Cave Depth (ft):

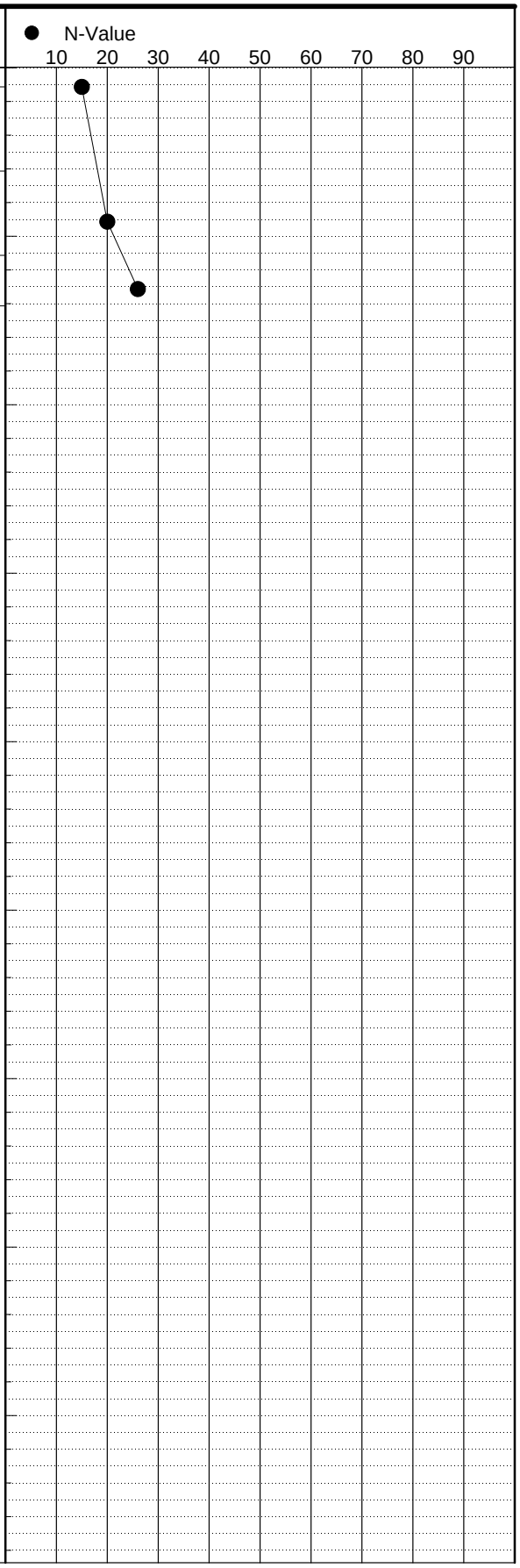
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0 — 580	6.8" of Asphalt			
	6" of Crushed Aggregate Base Red Sandy Silt: Very Stiff		2 7 11	
	Red Sandy Silt: Very Stiff		7 11 16	
5 — 575				
	Red Silty Sand: Dense		12 20 26	
	Boring Terminated at 7.067 ft.			
10 — 570				
15 — 565				
20 — 560				
25 — 555				
30 — 550				
35 — 545				
40 — 540				



ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 579
Latitude: N32°34.332 | Longitude: W85°30.836
Bore: B-3 | Bore Date: 3/11/2026
Drilled By: SC
Water after 24hr (ft): | Cave Depth (ft):

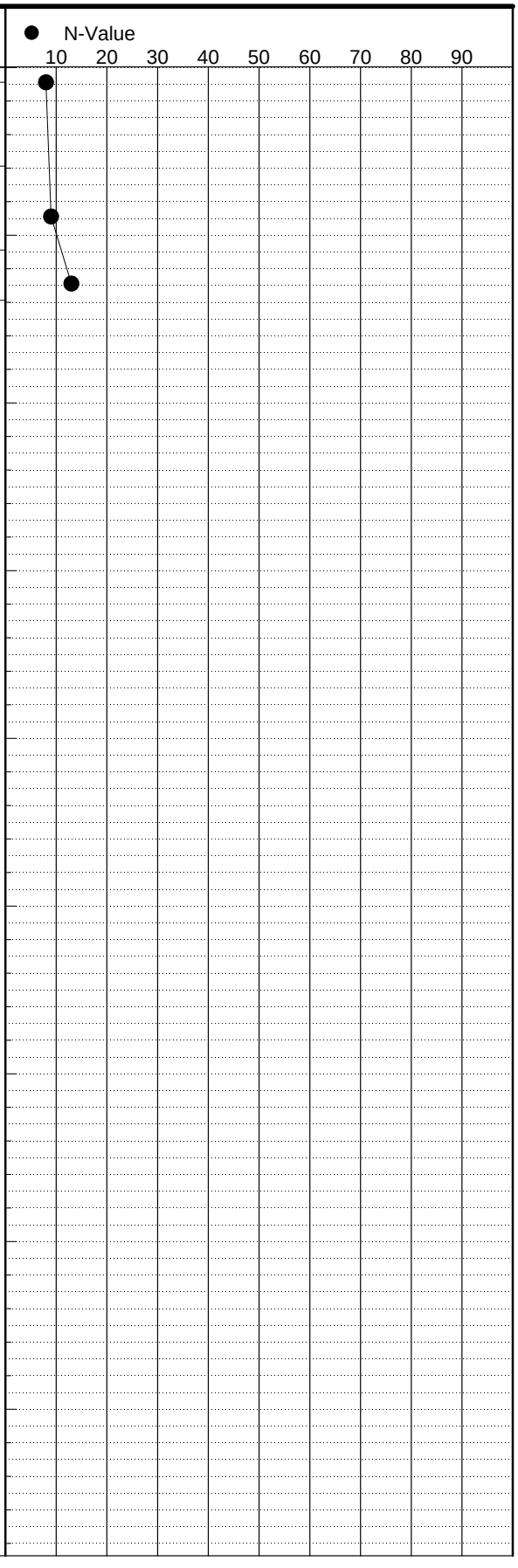
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0	6.8" of Asphalt			
	6" of Crushed Aggregate Base Red Silty Sand: Medium Dense		3 6 9	25.7
575	Tan Silty Sand: Medium Dense		6 8 12	22.4
5				
	Tan Sandy Silt: Very Stiff		9 12 14	15.1
	Boring Terminated at 7.067 ft.			
570				
10				
565				
15				
560				
20				
555				
25				
550				
30				
545				
35				
540				
40				
535				



CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 552
Latitude: N32°34.367 | Longitude: W85°30.698
Bore: B-4 | Bore Date: 3/11/2026
Drilled By: SC
Water after 24hr (ft): | Cave Depth (ft):

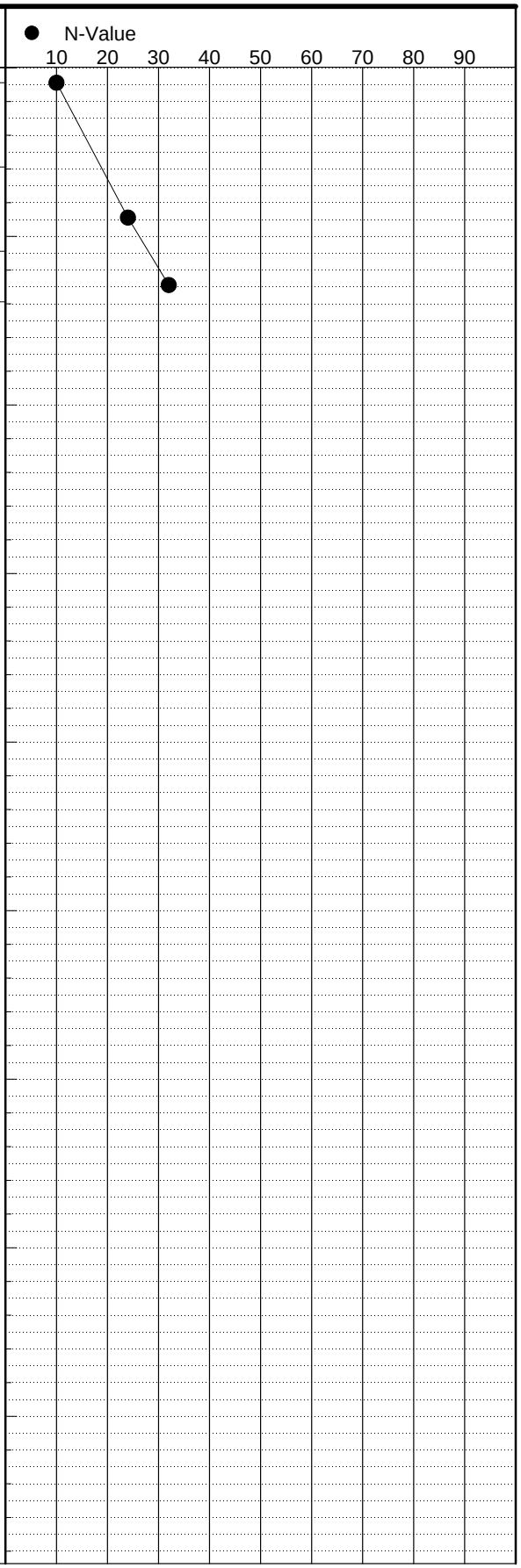
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0	5.3" of Asphalt			
550	6" of Crushed Aggregate Base Brown and Red Sandy Silt: Medium		5 3 5	7.45
5	Red Sandy Silt: Stiff		4 4 5	20.7
	Red and Brown Silty Sand: Medium Dense		5 6 7	25.4
545	Boring Terminated at 6.942 ft.			
10				
540				
15				
535				
20				
530				
25				
525				
30				
520				
35				
515				
40				
510				



ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 553
Latitude: N32°34.364 | Longitude: W85°30.697
Bore: B-5 | Bore Date: 3/11/2026
Drilled By: SC
Water after 24hr (ft): | Cave Depth (ft):

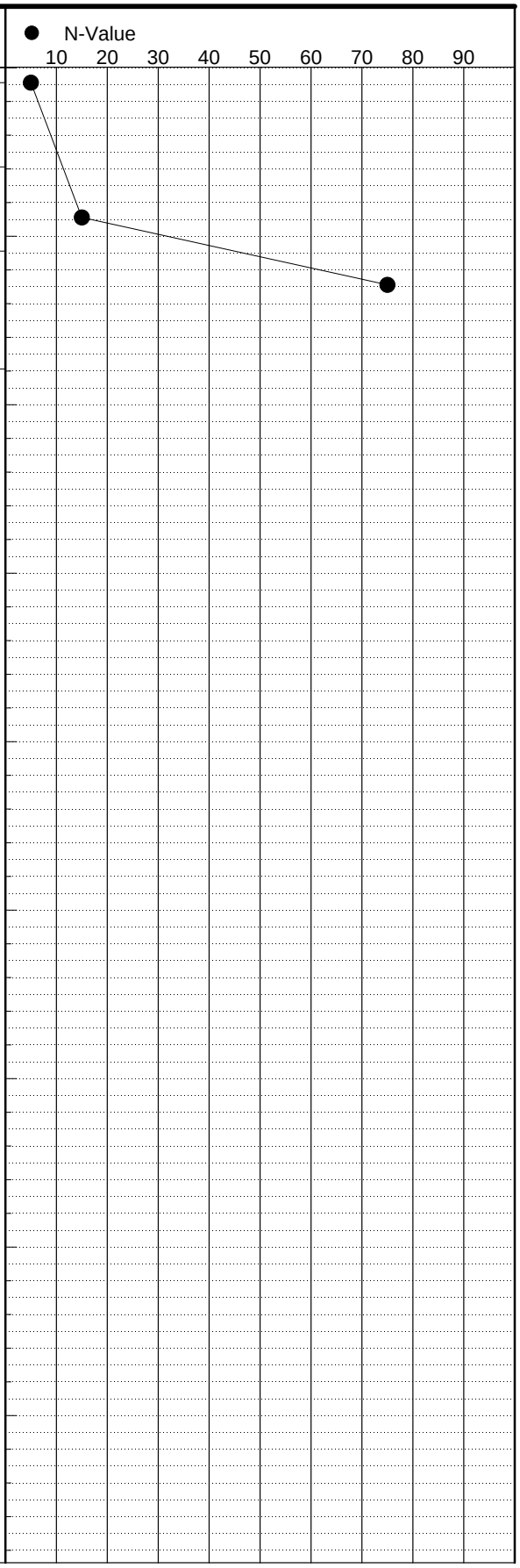
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0	5.3" of Asphalt			
	6" of Crushed Aggregate Base Red Sandy Silt: Stiff		6 5 5	
550	Red Sandy Silt: Very Stiff		15 11 13	
5	Brown Sandy Silt: Hard		8 15 17	
	Boring Terminated at 6.942 ft.			
545				
10				
540				
15				
535				
20				
530				
25				
525				
30				
520				
35				
515				
40				
510				



ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 553
Latitude: N32°34.362 | Longitude: W85°30.700
Bore: B-6 | Bore Date: 3/13/2026
Drilled By: SC
Water after 24hr (ft): | Cave Depth (ft):

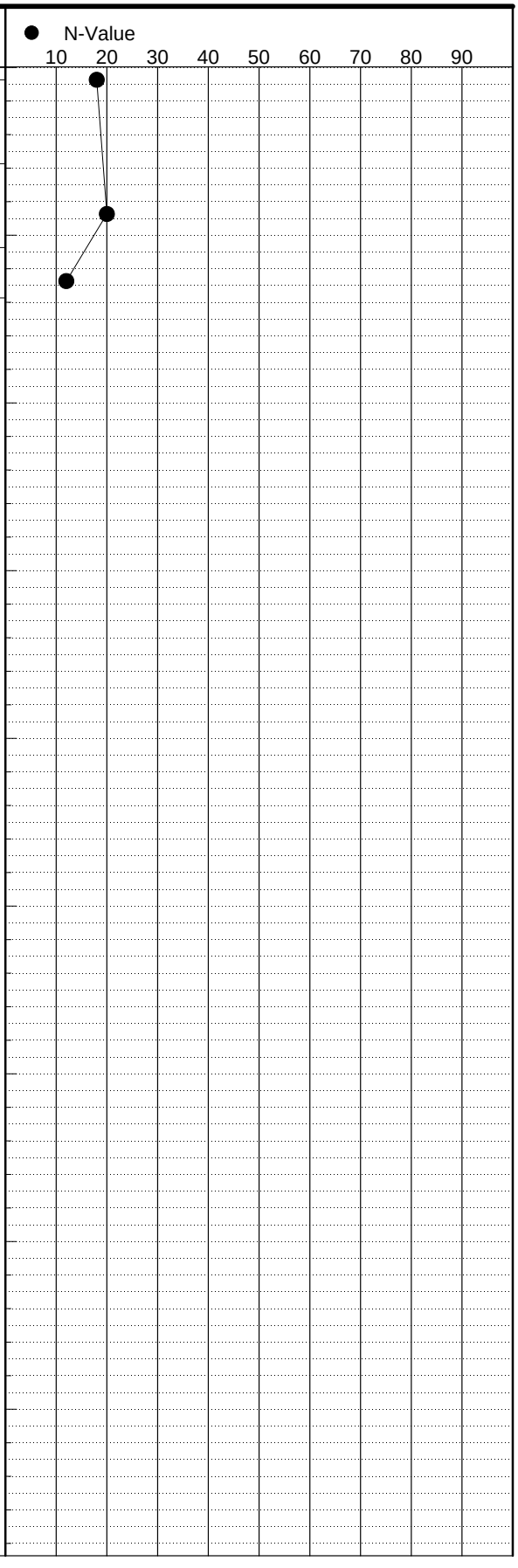
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0	5.3" of Asphalt 6" of Crushed Aggregate Base Red Sandy Silt: Medium		5 2 3	19.7
550	Red Silty Sand: Medium Dense		4 6 9	14.9
5	Brown Silty Sand: Very Dense		21 25 50	14.6
545				
10	Boring Terminated at 8.942 ft. Auger Refusal			
540				
15				
535				
20				
530				
25				
525				
30				
520				
35				
515				
40				
510				



ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 535
Latitude: N32°34.362 | Longitude: W85°30.420
Bore: B-7 | Bore Date: 3/11/2026
Drilled By: SC
Water after 24hr (ft): | Cave Depth (ft):

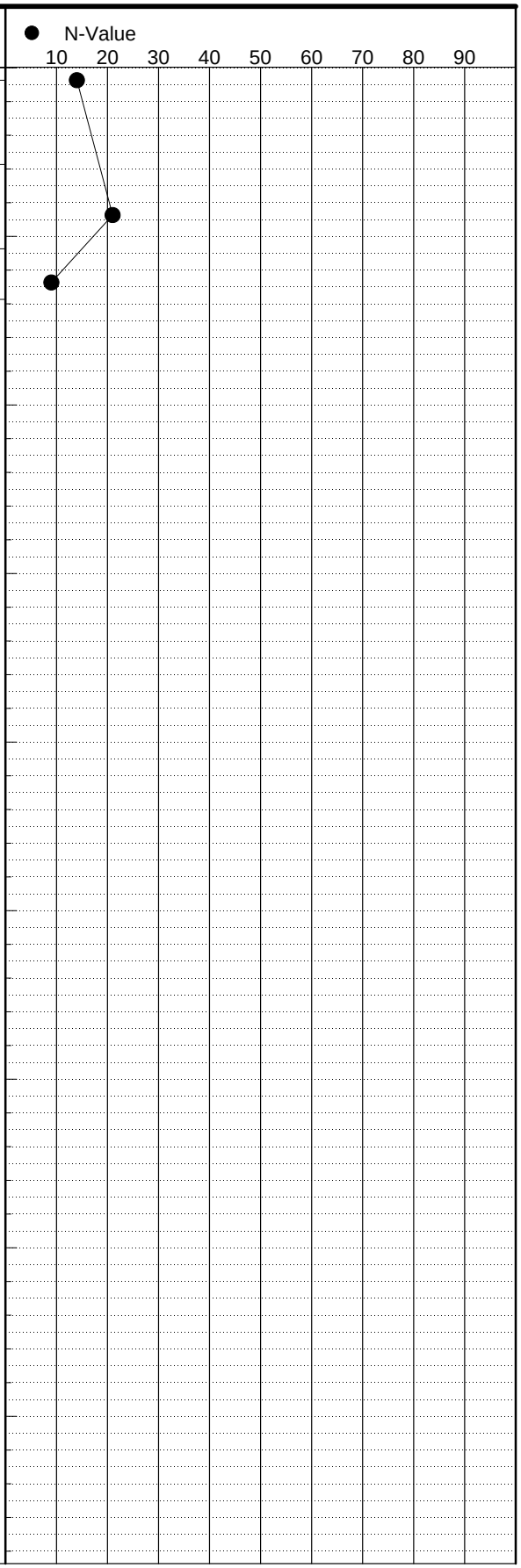
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0 — 535	4.4" of Asphalt 6" of Crushed Aggregate Base Red Silty Sand: Medium Dense		3 6 12	15.1
	Brown Clayey Sand: Medium Dense		9 10 10	9.7
5 — 530	Tan Clayey Sand: Medium Dense		4 6 6	13.4
	Boring Terminated at 6.867 ft.			
10 — 525				
15 — 520				
20 — 515				
25 — 510				
30 — 505				
35 — 500				
40 — 495				



ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 535
Latitude: N32°34.361 | Longitude: W85°30.419
Bore: B-8 | Bore Date: 3/11/2026
Drilled By: SC
Water after 24hr (ft): | Cave Depth (ft):

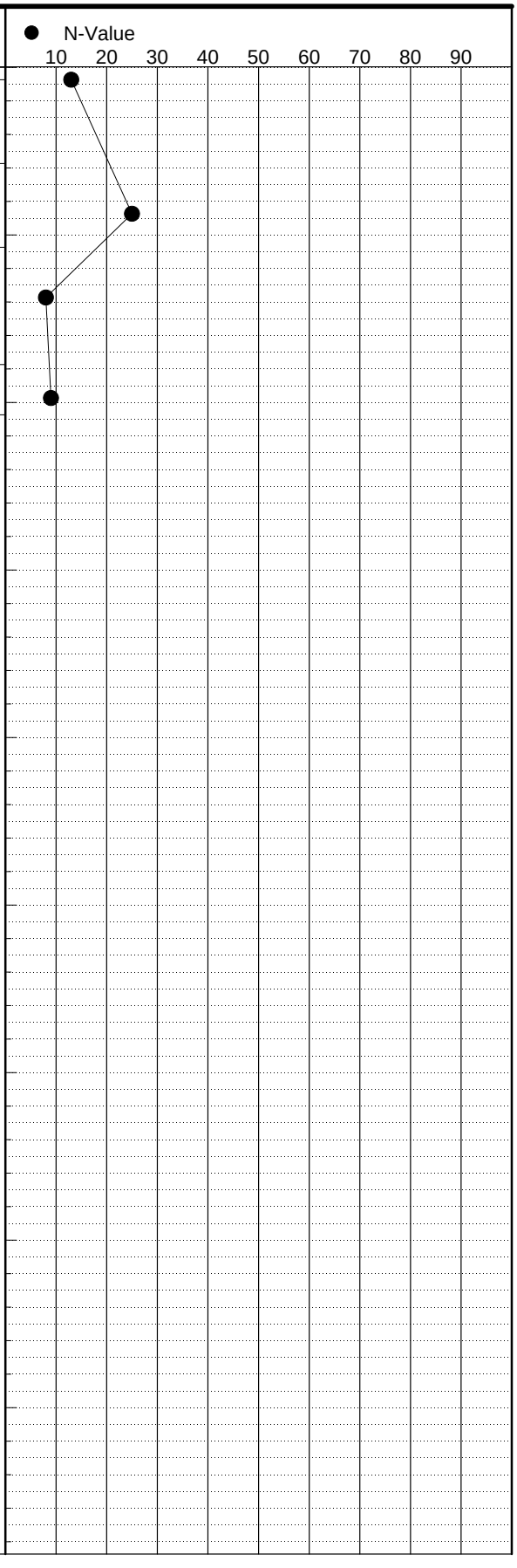
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0 — 535	4.4" of Asphalt 6" of Crushed Aggregate Base Tan Clayey Sand: Medium Dense		9 4 10	
	Tan Clayey Sand: Medium Dense		8 11 10	
5 — 530	Tan Silty Sand: Loose		3 4 5	
	Boring Terminated at 6.867 ft.			
10 — 525				
15 — 520				
20 — 515				
25 — 510				
30 — 505				
35 — 500				
40 — 495				



ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 535
Latitude: N32°34.359 | Longitude: W85°30.421
Bore: B-9 | Bore Date: 3/13/2026
Drilled By: SC
Water after 24hr (ft): | Cave Depth (ft):

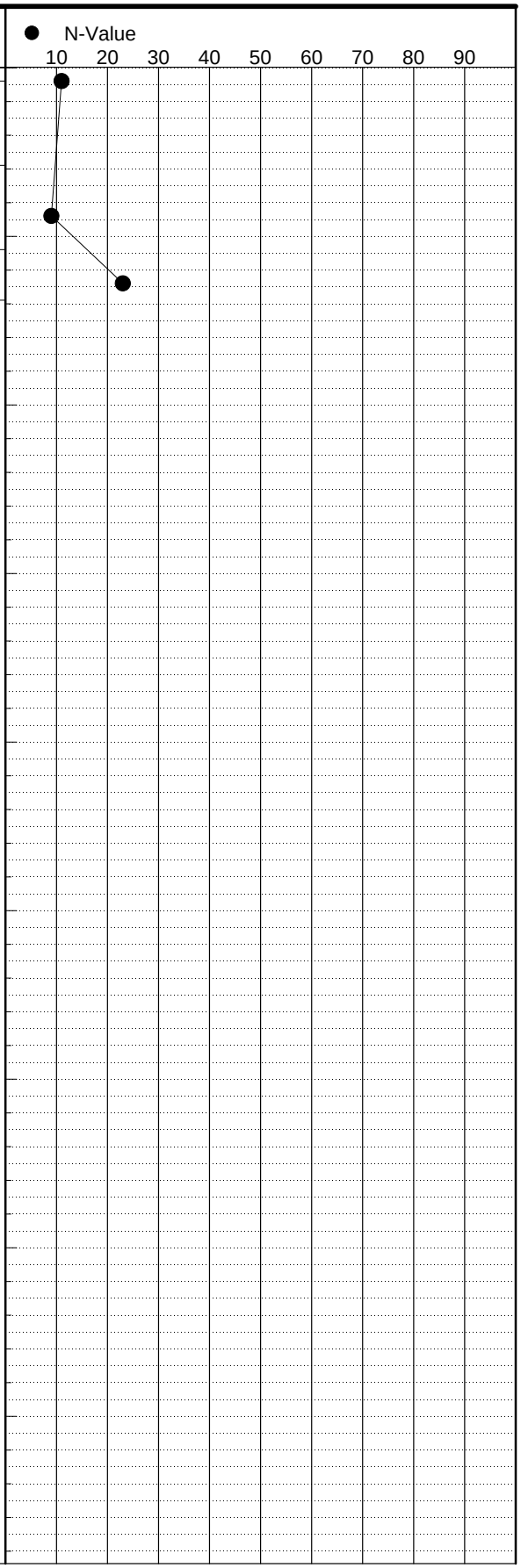
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0 — 535	4.4" of Asphalt 6" of Crushed Aggregate Base Red Clayey Sand: Medium Dense		6 5 8	17.9
	Brown Clayey Sand: Medium Dense		12 13 12	9.5
5 — 530	Red and Tan Clayey Sand: Loose		4 4 4	14.4
	Brown Clayey Sand: Loose		5 5 4	11.9
10 — 525	Boring Terminated at 10.367 ft.			
15 — 520				
20 — 515				
25 — 510				
30 — 505				
35 — 500				
40 — 495				



ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 584
Latitude: N32°34.466 | Longitude: W85°30.179
Bore: B-10 | Bore Date: 3/11/2026
Drilled By: SC
Water after 24hr (ft): | Cave Depth (ft):

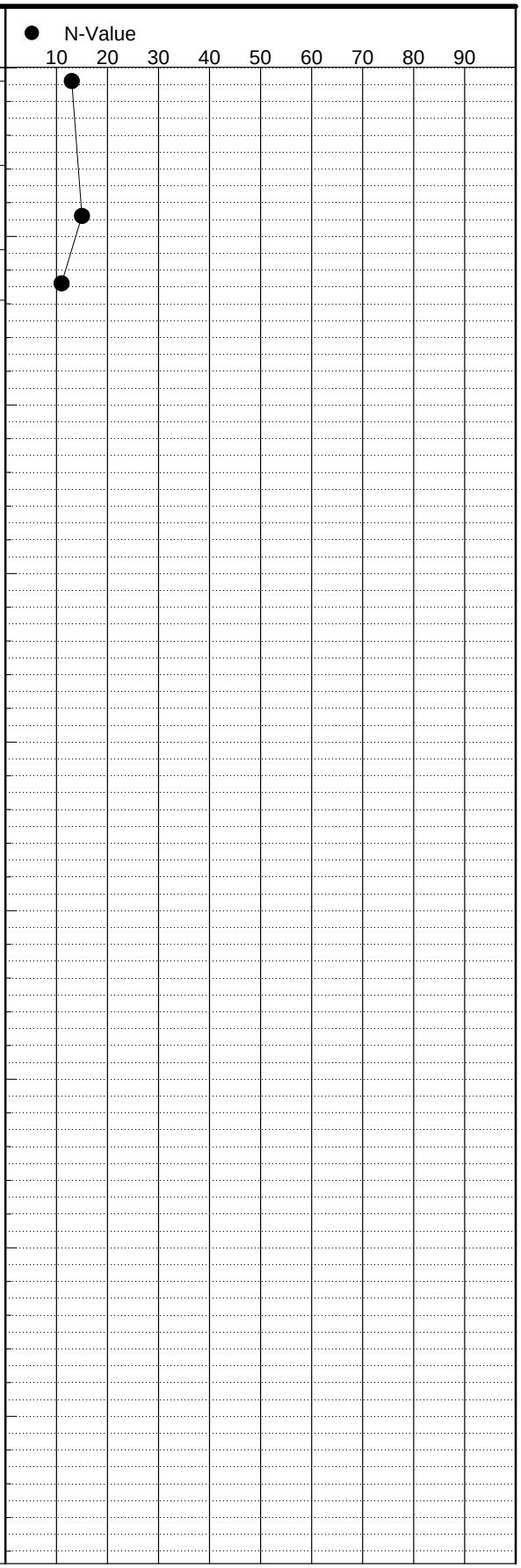
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0	4.7" of Asphalt			
	6" of Crushed Aggregate Base Red and Brown Silty Sand: Medium Dense		2 6 5	18.7
580	Brown Clayey Sand: Loose		3 3 6	16.5
5				
	Tan and Red Clayey Sand: Medium Dense		7 11 12	11.0
	Boring Terminated at 6.892 ft.			
575				
10				
570				
15				
565				
20				
560				
25				
555				
30				
550				
35				
545				
40				
540				



ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 586
Latitude: N32°34.458 | Longitude: W85°30.167
Bore: B-11 | Bore Date: 3/11/2026
Drilled By: SC
Water after 24hr (ft): | Cave Depth (ft):

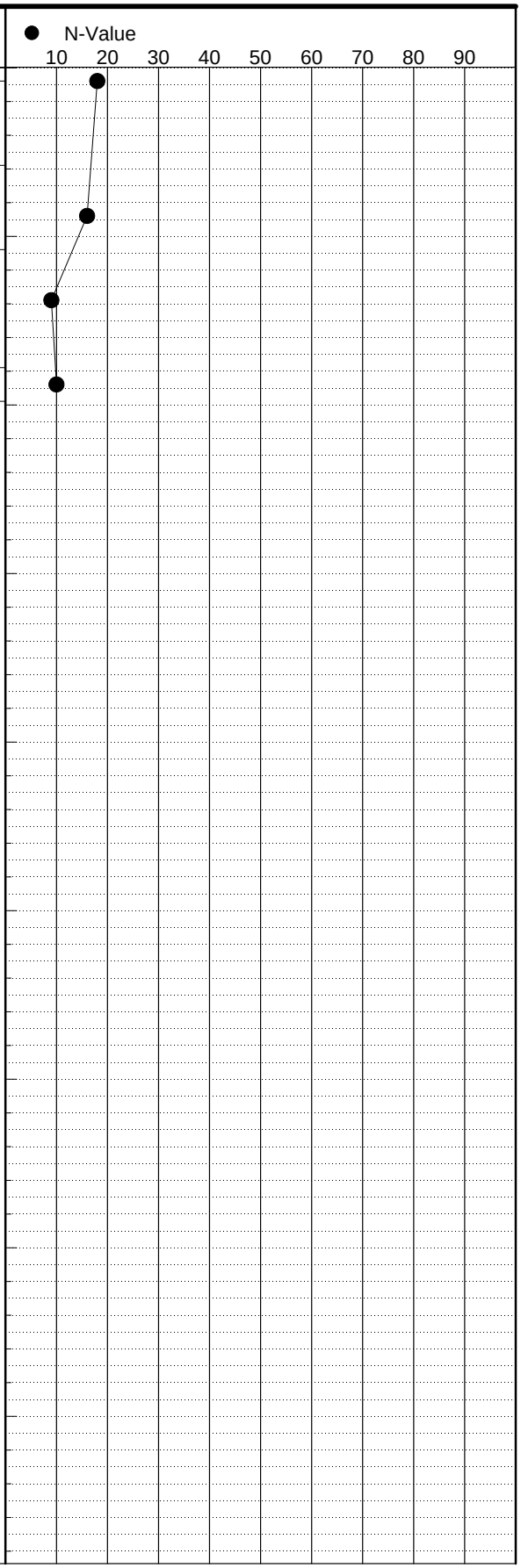
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0 / 585	4.7" of Asphalt 6" of Crushed Aggregate Base Brown Clayey Sand: Medium Dense		11 6 7	
5 / 580	Brown Clayey Sand: Medium Dense		4 7 8	
	Red and Tan Clayey Sand: Medium Dense		4 4 7	
10 / 575	Boring Terminated at 6.892 ft.			
15 / 570				
20 / 565				
25 / 560				
30 / 555				
35 / 550				
40 / 545				



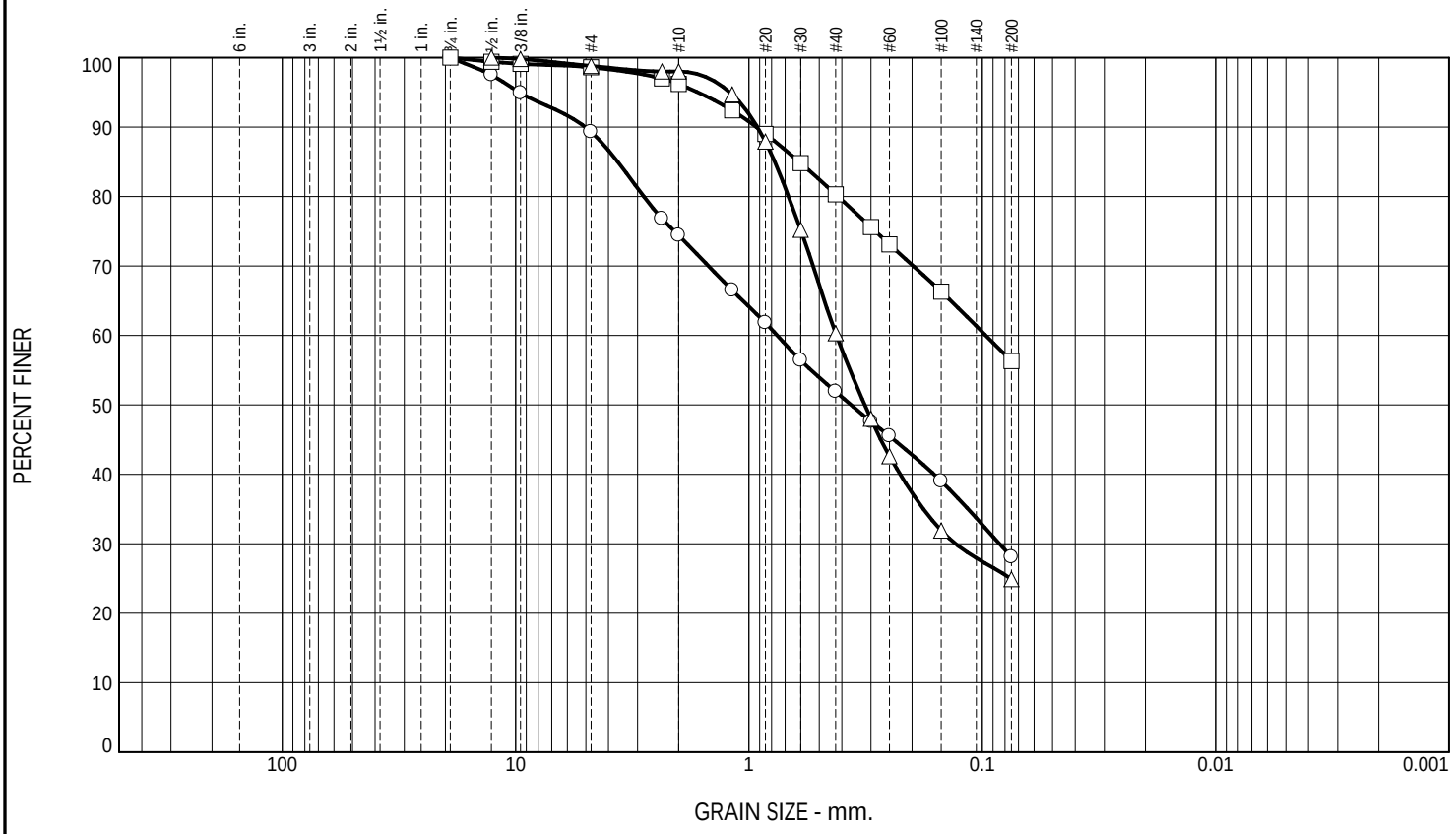
ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 584
Latitude: N32°34.460 | Longitude: W85°30.176
Bore: B-12 | Bore Date: 3/13/2026
Drilled By: SC
Water after 24hr (ft): | Cave Depth (ft):

Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0	4.7" of Asphalt 6" of Crushed Aggregate Base Red Clayey Sand: Medium Dense		15 8 10	10.6
580 5	Tan Clayey Sand: Medium Dense		8 9 7	14.7
	Brown and Red Clayey Sand: Loose		4 4 5	11.8
575 10	Brown and Tan Clayey Sand: Loose		6 6 4	16.1
	Boring Terminated at 9.892 ft. Auger Refusal			



Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
○	0.0	10.7	61.2	28.1		SM	A-2-5(0)	33	42
□	0.0	1.4	42.3	56.3		ML	A-7-5(8)	31	48
△	0.0	1.2	73.9	24.9		SC	A-2-6(0)	13	26

SIEVE inches size	PERCENT FINER ○	□	△
3/4"	100.0	100.0	
1/2"	97.5	99.4	100.0
3/8"	94.9	99.1	99.8
	GRAIN SIZE		
D_{60}	0.7569	0.0967	0.4218
D_{30}	0.0845		0.1304
D_{10}			
	COEFFICIENTS		
C_c			
C_u			

SIEVE number size	PERCENT FINER ○	□	△
#4	89.3	98.6	98.8
#8	76.8	97.0	98.0
#10	74.4	96.2	98.0
#16	66.5	92.4	94.7
#20	61.8	89.0	87.9
#30	56.4	84.8	75.2
#40	51.9	80.3	60.3
#50	47.6	75.6	48.0
#60	45.5	73.1	42.6
#100	39.0	66.3	31.9
#200	28.1	56.3	24.9

Material Description
○ Brown Silty Sand

□ Red Sandy Silt

△ Brown Clayey Sand

REMARKS:
○

□

△

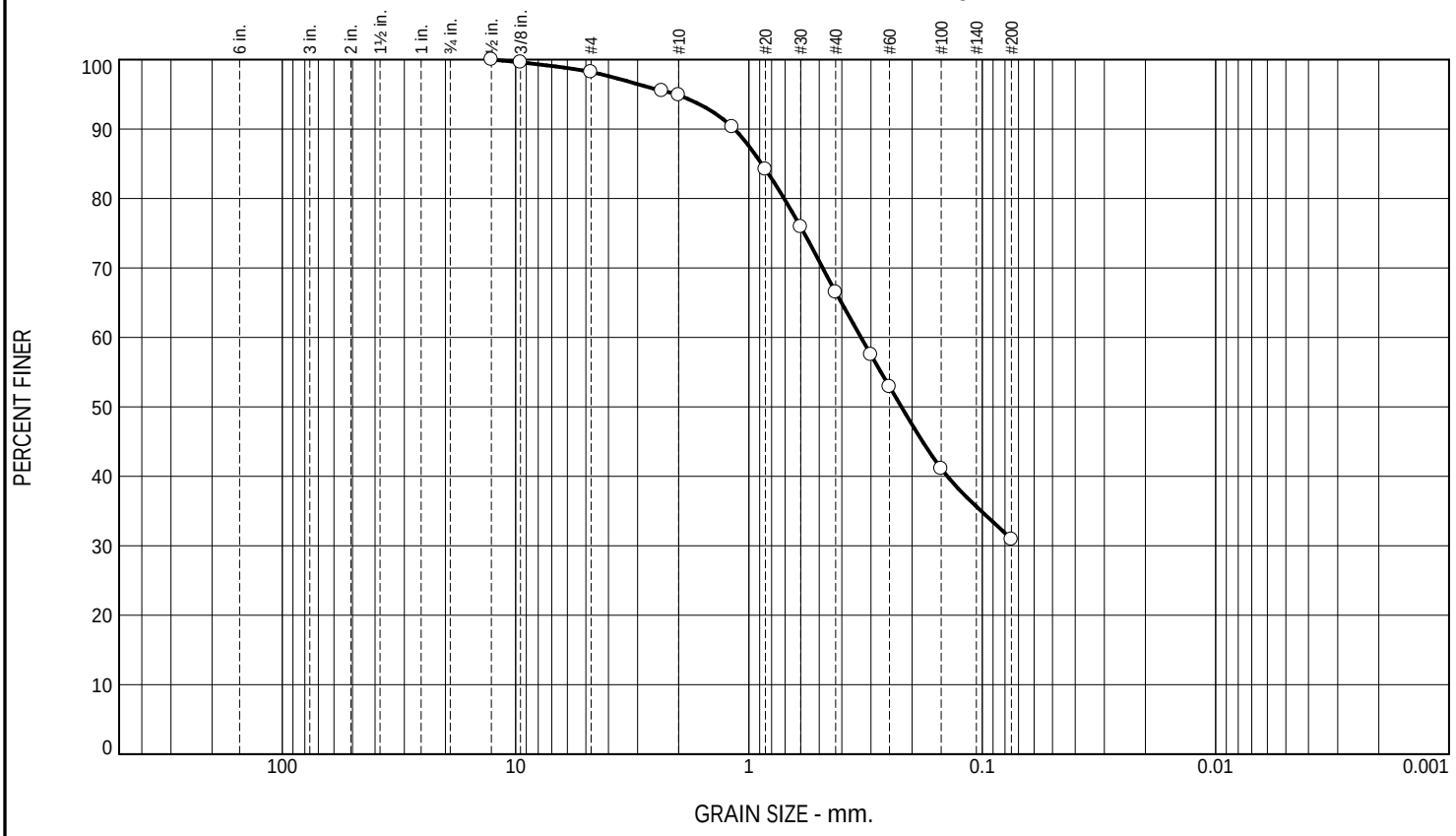
○ Source of Sample: B-1 Depth: 2.5-4' Sample Number: 24816
□ Source of Sample: B-4 Depth: 2.5-4' Sample Number: 24817
△ Source of Sample: B-9 Depth: 2.5-4' Sample Number: 24818

ACAI Construction Testing, LLC

Auburn, AL

Client: City of Auburn
Project: West Longleaf Drive Pavement Evaluation
Project No.:
Figure

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
○	0.0	1.8	67.3	30.9		SC	A-2-6(1)	20	36

SIEVE inches size	PERCENT FINER ○		
1/2"	100.0		
3/8"	99.6		
	GRAIN SIZE		
D_{60}	0.3309		
D_{30}			
D_{10}			
	COEFFICIENTS		
C_c			
C_u			

SIEVE number size	PERCENT FINER ○		
#4	98.2		
#8	95.5		
#10	94.9		
#16	90.3		
#20	84.2		
#30	75.9		
#40	66.5		
#50	57.5		
#60	52.9		
#100	41.1		
#200	30.9		

Material Description
○ Tan Clayey Sand

REMARKS:
○

○ Source of Sample: B-12 Depth: 2.5-4' Sample Number: 24819

ACAI Construction Testing, LLC

Auburn, AL

Client: City of Auburn

Project: West Longleaf Drive Pavement Evaluation

Project No.:

Figure

ADAPT Version 5.04

Alabama Design & Analysis of Pavement Thickness

File Location and Name:

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Project Name:

West Longleaf Drive FDR Buildup

Project Description:

New Pavement Section Using FDR

Project Setting:

Urban

Route Type:

Non-Interstate

Project Type:

New Design

Pavement Type(s):

Flexible

Traffic Inputs

Two Way Annual Average Daily Traffic (AADT):	10,000
Number of Lanes in Design Direction:	1
Growth Rate (%):	2.00%
Truck Percentage (Classes 5 - 13):	5.00%
Percent Trucks (Classes 5 - 13) in Design Lane:	100.00%
Percent Trucks (Classes 5 - 13) in Design Direction:	50.00%

Flexible Pavement Design Parameters

Performance Period (years):	12
Construction Stages:	1
Standard Deviation:	0.49
Reliability:	90.00%
Standard Normal Deviate:	-1.282
Subgrade Modulus, psi:	5,500
Initial Serviceability:	4.2
Terminal Serviceability:	3
Change in Serviceability:	1.2
Design Structural Number:	4.53
Design Structural Number, Rounded:	5
Total Trucks (Classes 5-13):	1,224,691
Total Other Vehicles (Classes 1-4):	23,269,137
Truck Damage Factor:	1.0088
Other Damage Factor:	0.0002
ESALs in Both Lanes and All Directions During First Year:	184,926
Flexible Pavement Total Design ESALs (W18):	1,240,123

Flexible Pavement Design Option 1

New Pavement Section Using FDR

Layer	Material Type	Modulus, psi	Structural Coefficient	Drainage Coefficient	Required SN	Required Thickness, in.	Design Thickness, in.	Design SN
1	AC	800,000	0.54	1	0	1	1	0.54
2	AC	800,000	0.54	1	0	2	2	1.62
3	Stabilized Base	100,000	0.25	1	4.53	12	12	4.62
4	Soil	5,500						

ADAPT Version 5.04

Alabama Design & Analysis of Pavement Thickness

File Location and Name:

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Project Name:

West Longleaf Drive FDR Buildup

Project Description:

Insufficient Pavement Section Using Mill and Overlay

Project Setting:

Urban

Route Type:

Non-Interstate

Project Type:

Overlay Design

Pavement Type(s):

Flexible

ity of Auburn\West Longleaf Drive Pavement Evaluation\Insufficient MO.xlsx

Traffic Inputs

Two Way Annual Average Daily Traffic (AADT):	10,000
Number of Lanes in Design Direction:	1
Growth Rate (%):	2.00%
Truck Percentage (Classes 5 - 13):	5.00%
Percent Trucks (Classes 5 - 13) in Design Lane:	100.00%
Percent Trucks (Classes 5 - 13) in Design Direction:	50.00%

Flexible Pavement Design Parameters

Performance Period (years):	12
Construction Stages:	1
Standard Deviation:	0.49
Reliability:	85.00%
Standard Normal Deviate:	-1.036
Subgrade Modulus, psi:	5,500
Initial Serviceability:	4.2
Terminal Serviceability:	3
Change in Serviceability:	1.2
Design Structural Number:	4.37
Design Structural Number, Rounded:	4
Total Trucks (Classes 5-13):	1,224,691
Total Other Vehicles (Classes 1-4):	23,269,137
Truck Damage Factor:	1.0794
Other Damage Factor:	0.0002
ESALs in Both Lanes and All Directions During First Year:	197,819
Flexible Pavement Total Design ESALs (W18):	1,326,586

AC Overlay AC Design

Future Design ESALs over Design Period, Nf:	1,326,586
Structural Number for Future Traffic, SNf:	4.37
Total Thickness of All Existing Pavement Layers (H1+H2), in:	12.8
Backcalculated Effective Pavement Modulus, psi:	150,000
Milling Thickness, in:	4
Milling Structural Coefficient:	0.4
Existing Pavement Effective Structural Number, SNeff:	1.46
AC Overlay Structural Coefficient:	0.54
Design Structural Number, SNdes:	4.37
Required Overlay Thickness, in:	5.39

Required overlay thickness would be above the curb and gutter elevation by 1.39 inches.

Default Report Title
Use Preferences to Define Titles

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5 00		3	5
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12 00 M	229	2 0	9
1 00	2 9	2 5	53
2 00	2 2	2	51
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5 00	3	310	9
00	0	3 5	5
00	393	3 5	3
00	3	2	5
9 00	35	19	552
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11 00	2 1	109	350
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1 00	92	5			1
2 00	59				10
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00	2	1			2
5 00	10	35			5
00	2	3			101
00	5	1			235
00	105	32			33
9 00	129	2 9			1
10 00	1	25			03
11 00	1 1	2			1
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1 00	30	2			592
2 00	1	15			32
3 00					0
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Total	1 3	2322			0 5
er ent	3.2%	5 . %			
M ea	11 00	00			00
Volu e	1 1	32			33
M ea	1 00	1 00			1 00
Volu e	30	2			592
Grand Total	99 9	90 1			190 0
er ent	52. %	. %			
DT		DT 9 32	DT 9 32		

CONSTRUCTION TESTING

June 2, 2026

Mr. Justin Foster
City of Auburn Engineering Services
171 N. Ross Street
Auburn, AL 36830

Re: Subsurface Exploration and Pavement Evaluation – Phase II
West Longleaf Drive Rehabilitation from Eagles Landing to South College Street
Auburn, AL

Dear Mr. Foster,

ACAI Construction Testing, LLC (ACAI) has completed the requested geotechnical subsurface exploration and pavement evaluation for the above-mentioned project in Auburn, Alabama. Our services were provided in general accordance with our proposal entitled *Proposal for Subsurface Exploration and Pavement Evaluation – Phase II West Longleaf Drive Rehabilitation from Eagles Landing to South College Street*, dated May 14, 2026.

Scope
The intent of this evaluation is to determine if subsurface moisture levels have changed underneath the pavement due to recent precipitation and seasonal influence.

The proposed scope of work included the following:

- Subsurface exploration and soil evaluation for West Longleaf Drive Rehabilitation. Evaluation will consist of four (4) borings to 10 ft below the roadway surface.
- Laboratory soil classification testing to include sixteen (16) moisture contents, four (4) particle size distribution tests and four (4) Atterberg Limits tests.
- Letter report of results to be submitted to client upon completion of the project. The report will address subsurface conditions encountered at the boring locations and laboratory test results.

In order to further evaluate if saturated conditions are present underneath the roadway's subgrade material, moisture content testing was performed in the center lane of each cross-section.

Site Description
The project consists of rehabilitating approximately 1 mile of West Longleaf Drive from Eagles Landing to South College Street in Auburn, Alabama. Based on a site visit performed on March 6, 2026, the roadway consists of three lanes with curb-and-gutter. The roadway is surfaced with asphalt that exhibits significant distress. The proposed rehabilitation of the roadway will maintain the existing alignment, grades and roadway width.

The project location is divided into four areas in order to further investigate subsurface concerns and remediation methods. The areas of concern are labeled as:

- Eagles Landing to Downs Way (~1200')
- Downs Way to AU Equestrian Center (~1250')
- AU Equestrian Center to Samford Square (~1900')
- Samford Square to South College Street (~1225')

Existing Pavement and Base Sections

Structural numbers (SN) associated with the existing asphalt and base thicknesses were determined at the individual bore locations. The bore locations were within approximately 5-10' of the previous core locations in the center lane at each area. Since no cores were taken, the estimated asphalt and base thickness values were measured from the borehole location. The calculations were based on a structural coefficient of 0.35 for existing asphalt and 0.14 for aggregate base. The following table provides borehole measurements and estimations of base and asphalt thicknesses and resulting structural number calculations.

Estimated Borehole Measurements and SN Calculations			
Bore Location	**Estimated Asphalt Thickness, in.**	**Estimated Aggregate Base Thickness, in.**	**Structural Number**
B-13	6.5	6.0	3.12
B-14	5.5	6.0	2.77
B-15	4.5	6.0	2.42
B-16	4.5	6.0	2.42
Average	**5.3**	**6.0**	**2.68**
Previous Core Data Average	**4.8**	**5.9**	**2.52**

The information provided in this report aligns with previous core data that suggests that the roadway in its existing buildup and condition is not capable of providing the strength and structural integrity necessary to withstand the amount of current traffic loading. The roadway appears to be underbuilt for the current traffic volume, and near the end of its service life.

Subsurface Conditions

Borings extended to termination depths 10 ft. Details of the conditions encountered at the boring locations are provided on the attached Boring Logs. The bore locations and elevations in the attached Boring Location Plan should be considered approximate. Groundwater was not encountered in the borings at the time of excavation. The borings

were backfilled and topped with 4-6 inches of compacted asphaltic cold patch at each bore and core location upon completion.

The asphalt thickness at the bore locations ranged from 4.5” to 6.5” in thickness. The aggregate base thickness at each bore location is approximately 6.0” in thickness. Underlying the asphalt and base material, the subgrade evaluated was made up of mainly silty sand (SM), sandy silt (ML) and clayey sand (SC). Subgrade material included loose to dense sands (non-cohesive) with clays ranging from soft to stiff (cohesive) consistency. Standard Penetration Test (SPT) N-values ranged from 5 to 30 blows per foot (bpf), revealing loose to dense subgrade conditions.

Laboratory testing and analysis of selected samples provided natural moisture contents ranging from 9.9% to 20.6%, which are similar to the moisture content data range from the previous sampling efforts of 7.5% to 25.7%.

The tested soil samples presented a moderate degree of plasticity with Liquid Limit (LL) values ranging from 27 to 53 and correlate well with the previous data range of 26 to 48. Plasticity Index (PI) values ranging from 8 to 17 also correlate well with the previous data range of 9 to 17. The samples contained between 26.5% and 45.9% fine-grained (silt and clay size) particles compared to previous data consisting of 28.1% to 56.3% of fine-grained particles.

The tested soil samples are classified based on USCS guidelines as silty sand (SM), and clayey sand (SC) and are classified per AASHTO guidelines as A-7-5, A-7-6, A-2-4, and A-2-4 materials. Previous classification results indicated silty sand (SM), sandy silt (ML), clayey sand (SC) and A-2-5, A-7-5, and A-2-6 materials. A summary of each bore location is provided below.

Eagles Landing to Downs Way (B-13)

The asphalt thickness at the bore location in this area is 6.5”. Underlying the asphalt and base, borings identified what appears to be previously-placed fill composed of silty sand and sandy silt. The samples tested for natural moisture content in this location ranged from 16.4% to 20.6%. The tested soil sample presented a moderate degree of plasticity with a Liquid Limit (LL) value of 53 and a Plasticity Index (PI) value of 17. The sample contained 42.0% fine-grained (silt and clay size) particles. The tested soil sample is classified based on USCS guidelines as silty sand (SM) and is classified based on AASHTO guidelines as A-7-5 material.

Standard Penetration Test (SPT) N-values ranged from 11 to 26 blows per foot (bpf), revealing medium to medium dense subgrade conditions. The borings at this cross-section generally encountered silty sand materials underlying the asphalt and base.

Downs Way to AU Equestrian Center (B-14)

The asphalt thickness at the bore location in this area is 5.5”. Underlying the asphalt and base, borings identified what appears to be previously-placed fill composed of silty sand

and sandy silt. The samples tested for natural moisture content in this location ranged from 12.9% to 20.6%. The tested soil sample presented a moderate degree of plasticity with a Liquid Limit (LL) value of 41 and a Plasticity Index (PI) value of 14. The sample contained 45.9% fine-grained (silt and clay size) particles. The tested soil sample is classified based on USCS guidelines as silty sand (SM) and is classified based on AASHTO guidelines as A-7-6 material.

Standard Penetration Test (SPT) N-values ranged from 9 to 30 blows per foot (bpf), revealing medium to stiff/dense subgrade conditions. The borings at this cross-section generally encountered sandy silt materials underlying the asphalt and base.

AU Equestrian Center to Samford Square (B-15)

The asphalt thickness at the bore location in this area is 4.5”. Underlying the asphalt and base, borings identified what appears to be previously-placed fill composed of silty sand and clayey sand. The samples tested for natural moisture content in this location ranged from 9.9% to 13.0%. The tested soil sample presented a moderate degree of plasticity with a Liquid Limit (LL) value of 27 and a Plasticity Index (PI) value of 10. The sample contained 26.5% fine-grained (silt and clay size) particles. The tested soil sample is classified based on USCS guidelines as clayey sand (SC) and is classified based on AASHTO guidelines as A-2-4 material.

Standard Penetration Test (SPT) N-values ranged from 5 to 25 blows per foot (bpf), revealing loose to dense subgrade conditions. The borings at this cross-section generally encountered clayey sand materials underlying the asphalt and base.

Samford Square to South College Street (B-16)

The asphalt thickness at the bore location in this area is 4.5”. Underlying the asphalt and base, borings identified what appears to be previously-placed fill composed of silty sand and clayey sand. The samples tested for natural moisture content in this location ranged from 10.8% to 13.8%. The tested soil sample presented a moderate degree of plasticity with a Liquid Limit (LL) value of 27 and a Plasticity Index (PI) value of 8. The sample contained 27.5% fine-grained (silt and clay size) particles. The tested soil sample is classified based on USCS guidelines as clayey sand (SC) and is classified based on AASHTO guidelines as A-2-4 material.

Standard Penetration Test (SPT) N-values ranged from 12 to 23 blows per foot (bpf), revealing medium dense to dense subgrade conditions. The borings at this cross-section generally encountered clayey sand materials underlying the asphalt and base.

Summary

Initial concerns of increased subsurface moisture levels underneath the pavement due to recent precipitation and seasonal influence have been alleviated as moisture contents and N-values were consistent with firm subgrade conditions.

Asphalt pavement and base thickness values are consistent with previous data, which suggests that the pavement buildup of the existing road does not meet the requirements necessary for the current amount of traffic loading on the roadway.

SPT N-values and laboratory testing and analysis of selected samples are also consistent with previous data, which suggests that the subsurface moisture levels have not changed significantly underneath the pavement from recent precipitation and seasonal influence.

Closing

Data was drilled, and collected by Nichols Environmental Consulting, LLC (NEC, LLC), while under the general supervision of ACAI. Laboratory testing and calculations generated by ACAI. Cursory review of field applications and data accompanying this report were reviewed by the ACAI staff and recommendations for specific criteria relating to soil conditions, foundation recommendations and engineering principles are reviewed by and solely determined by ACAI Construction Testing, LLC.

This report has been prepared for the City of Auburn Engineering Services for specific application to the **Phase II - West Longleaf Drive Rehabilitation from Eagles Landing to South College Street** project in Auburn, Alabama. This report is intended for use on the stated project and should not be used for other purposes. This report is not transferable to a third party.

This report has been prepared in accordance with currently accepted standards of geotechnical engineering principles and practices, and no other warranties are expressed or implied. The recommendations of this report are based on our professional judgment and understanding of the proposed construction and the data available to us. ACAI must be informed of any changes made to the scope of the project and allowed to review those changes to provide revisions (if necessary) to the recommendations provided in this report.

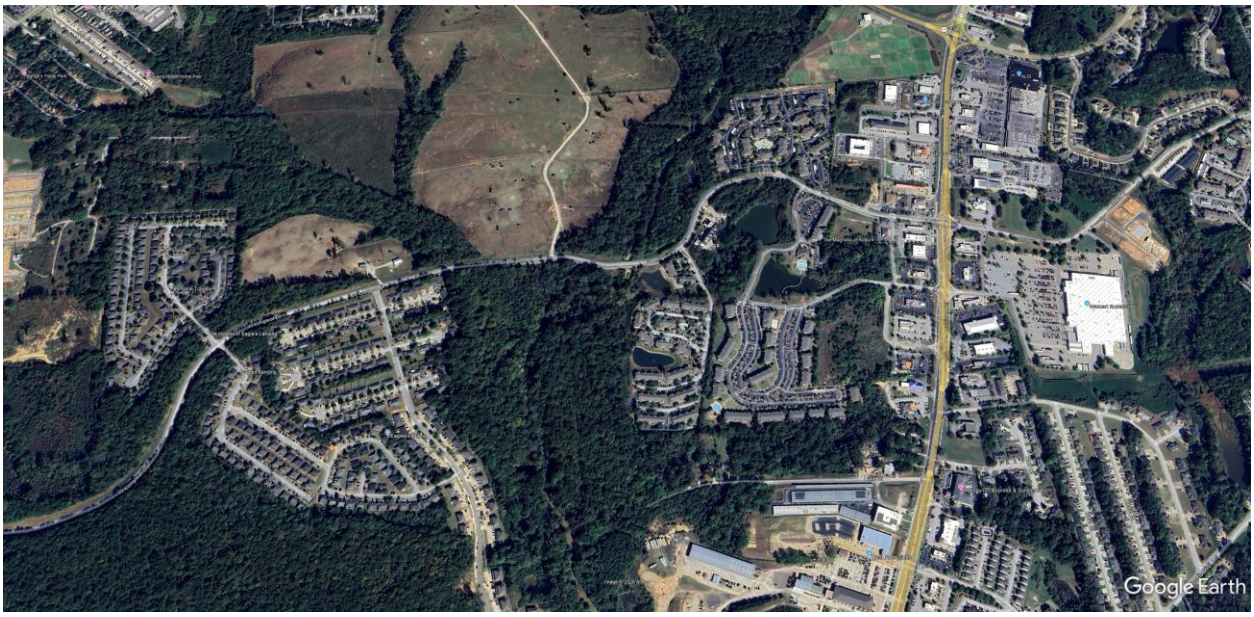
Thank you for selecting ACAI to provide the geotechnical services for this project. If we can be of any further assistance, please contact our office.

Respectfully Submitted,
ACAI Construction Testing, LLC

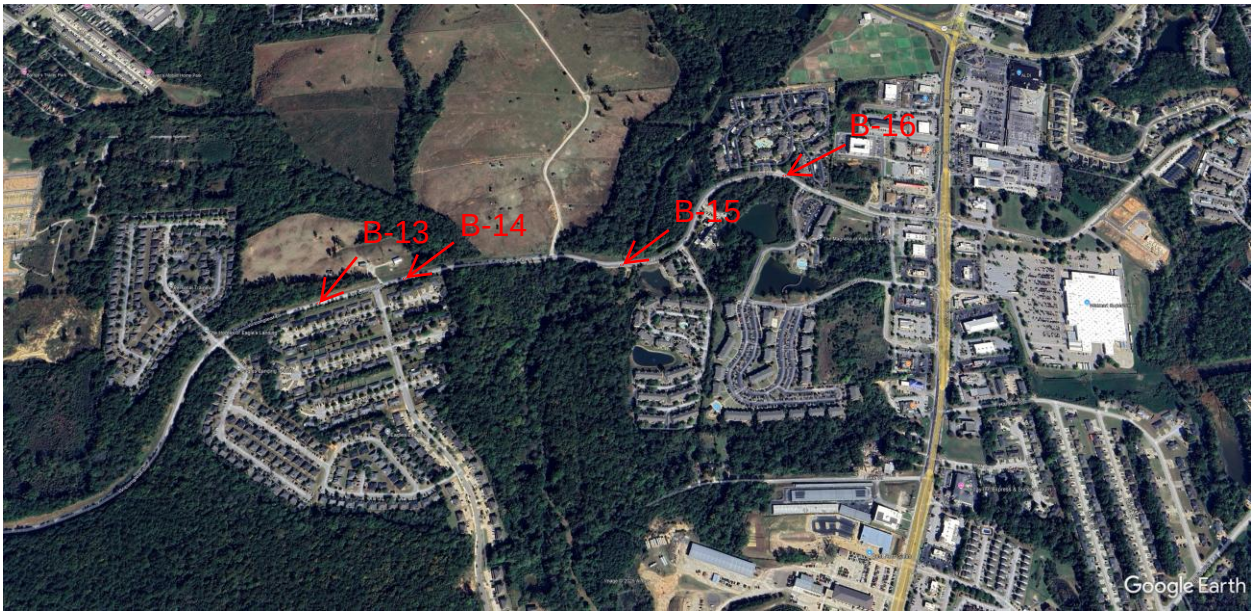
Billy Wilson, PE
Senior Geotechnical Engineer



Attachments:
- Site Vicinity Map
- Boring Location Plan
- Boring Logs
- Laboratory Test Data



Site Vicinity Map
Eagles Landing to South College Street
West Longleaf Drive
Auburn, Alabama

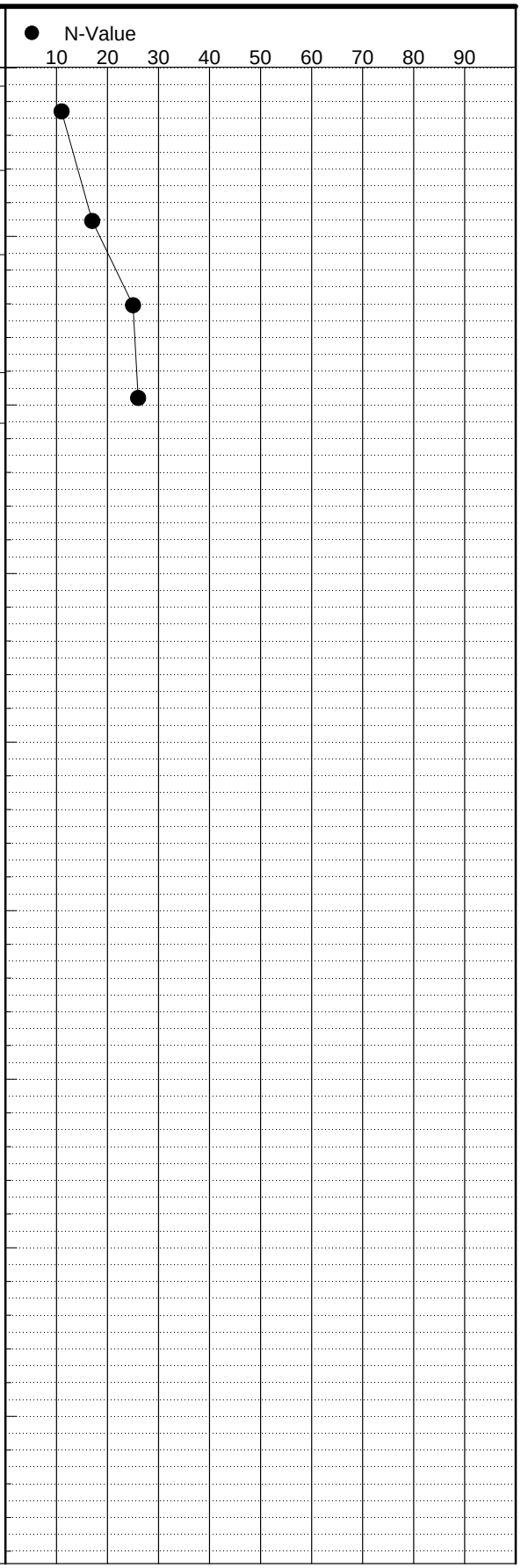


Boring Location Plan
Eagles Landing to South College Street
West Longleaf Drive
Auburn, Alabama

ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 579
Latitude: N32°34.338 | Longitude: W85°30.836
Bore: B-13 | Bore Date: 5/22/2026
Drilled By: SC
Water after 24hr (ft): NA | Cave Depth (ft): NA

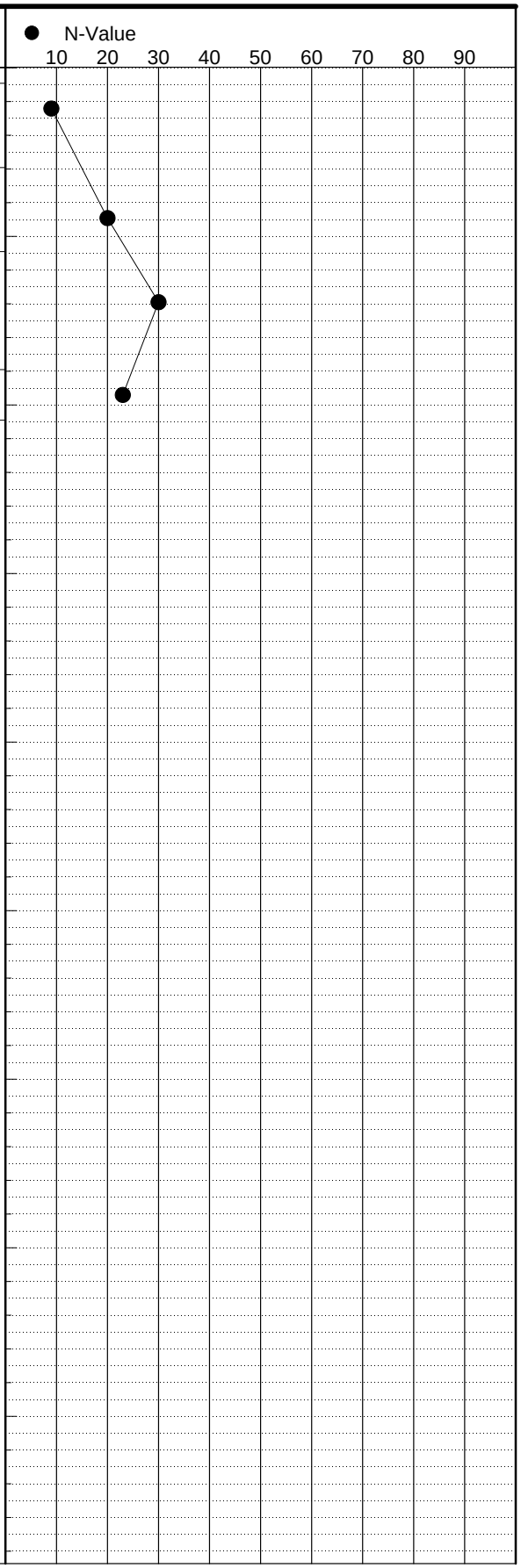
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0	6.5" of Asphalt			
	6" of Crushed Aggregate Base Red and Brown Sandy Silt: Stiff		2 4 7	20.6
575	Red and Brown Silty Sand: Medium Dense		3 6 11	19.6
5				
	Tan Silty Sand: Medium Dense		5 11 14	18.2
570				
10	Brown Silty Sand: Medium Dense		8 12 14	16.4
	Boring Terminated at 10.542 ft.			
565				
15				
560				
20				
555				
25				
550				
30				
545				
35				
540				
40				
535				



ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 543
Latitude: N32°34.367 | Longitude: W85°30.695
Bore: B-14 | Bore Date: 5/22/2026
Drilled By: SC
Water after 24hr (ft): NA | Cave Depth (ft): NA

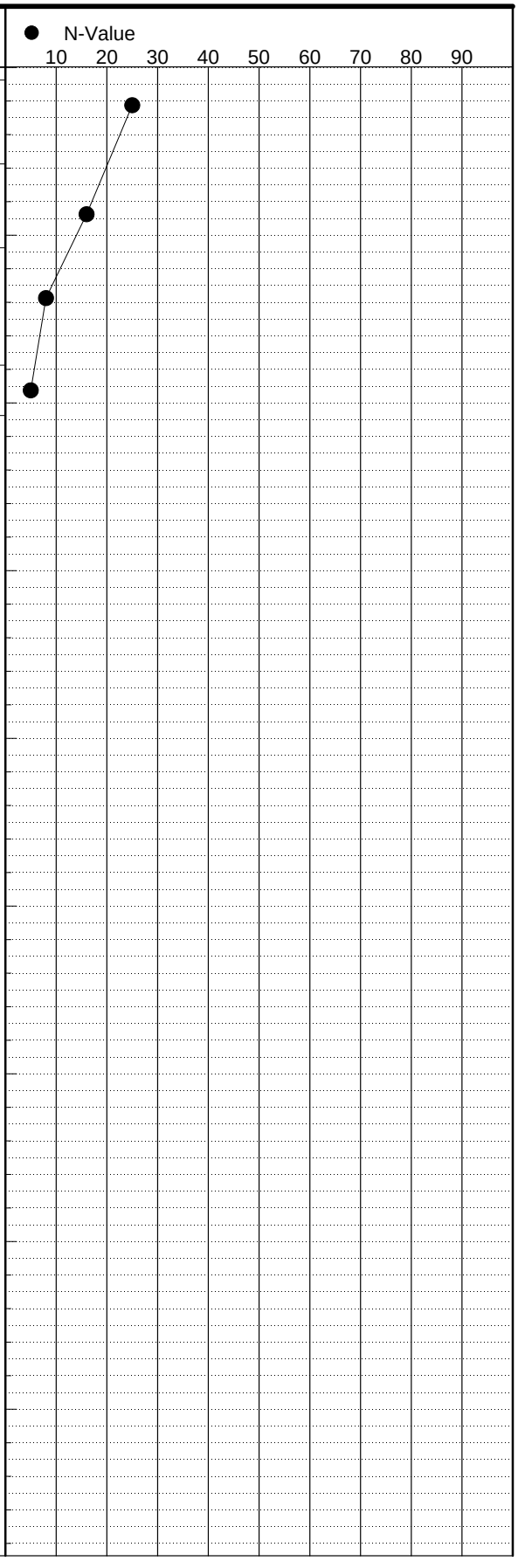
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0	5.5" of Asphalt			
	6" of Crushed Aggregate Base Red Sandy Silt: Stiff		3 4 5	15.7
540	Tan Sandy Silt: Very Stiff		5 9 11	20.6
5				
	Brown Sandy Silt: Very Stiff		11 13 17	12.9
535				
	Brown Sandy Silt: Very Stiff		9 10 13	16.4
10	Boring Terminated at 10.452 ft.			
530				
15				
525				
20				
520				
25				
515				
30				
510				
35				
505				
40				
500				



ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 534
Latitude: N32°34.362 | Longitude: W85°30.419
Bore: B-15 | Bore Date: 5/22/2026
Drilled By: SC
Water after 24hr (ft): NA | Cave Depth (ft): NA

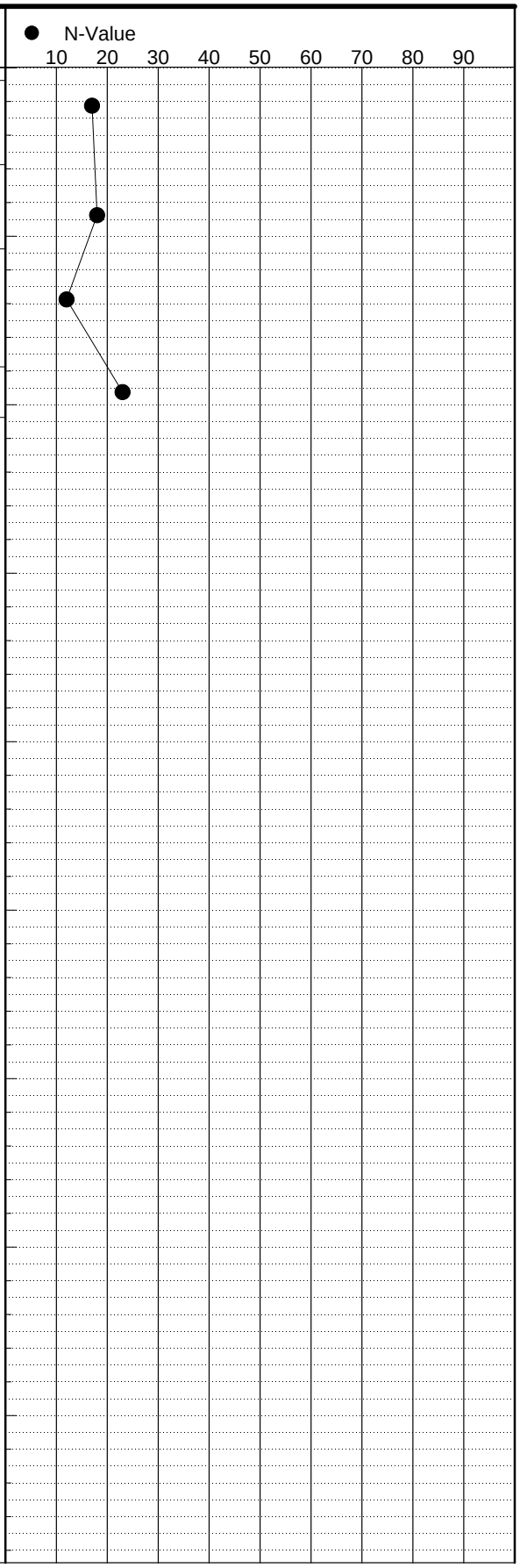
Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0	4.5" of Asphalt			
	6" of Crushed Aggregate Base Tan Clayey Sand: Medium Dense		11 10 15	12.5
530	Tan Clayey Sand: Medium Dense		10 9 7	9.9
5				
	Tan Silty Sand: Loose		3 4 4	13.0
525				
10	Brown Clayey Sand: Loose		2 2 3	11.7
	Boring Terminated at 10.375 ft.			
520				
15				
515				
20				
510				
25				
505				
30				
500				
35				
495				
40				
490				



ACAI CONSTRUCTION TESTING

Project: West Longleaf Drive Pavement Evaluation
Client: City of Auburn | Address: West Longleaf Drive
Location: Auburn AL | Elevation: 587
Latitude: N32°34.457 | Longitude: W85°30.167
Bore: B-16 | Bore Date: 5/22/2026
Drilled By: SC
Water after 24hr (ft): NA | Cave Depth (ft): NA

Depth / Elev.	Description	Stratum	Blow counts	Moisture:
0	4.5" of Asphalt			
585	6: of Crushed Aggregate Base Red Clayey Sand: Medium Dense		4 8 9	11.7
5	Red Clayey Sand: Medium Dense		7 9 9	10.8
580	Brown Clayey Sand: Medium Dense		5 6 6	11.0
10	Brown Clayey Sand: Medium Dense		6 11 12	13.6
	Boring Terminated at 10.375 ft.			



KEY TO SYMBOLS

Symbol	Description
Strata symbols:	
	Paving
	Silty sand
	Clayey sand/ Low plasticity clay
	Silt

Notes:

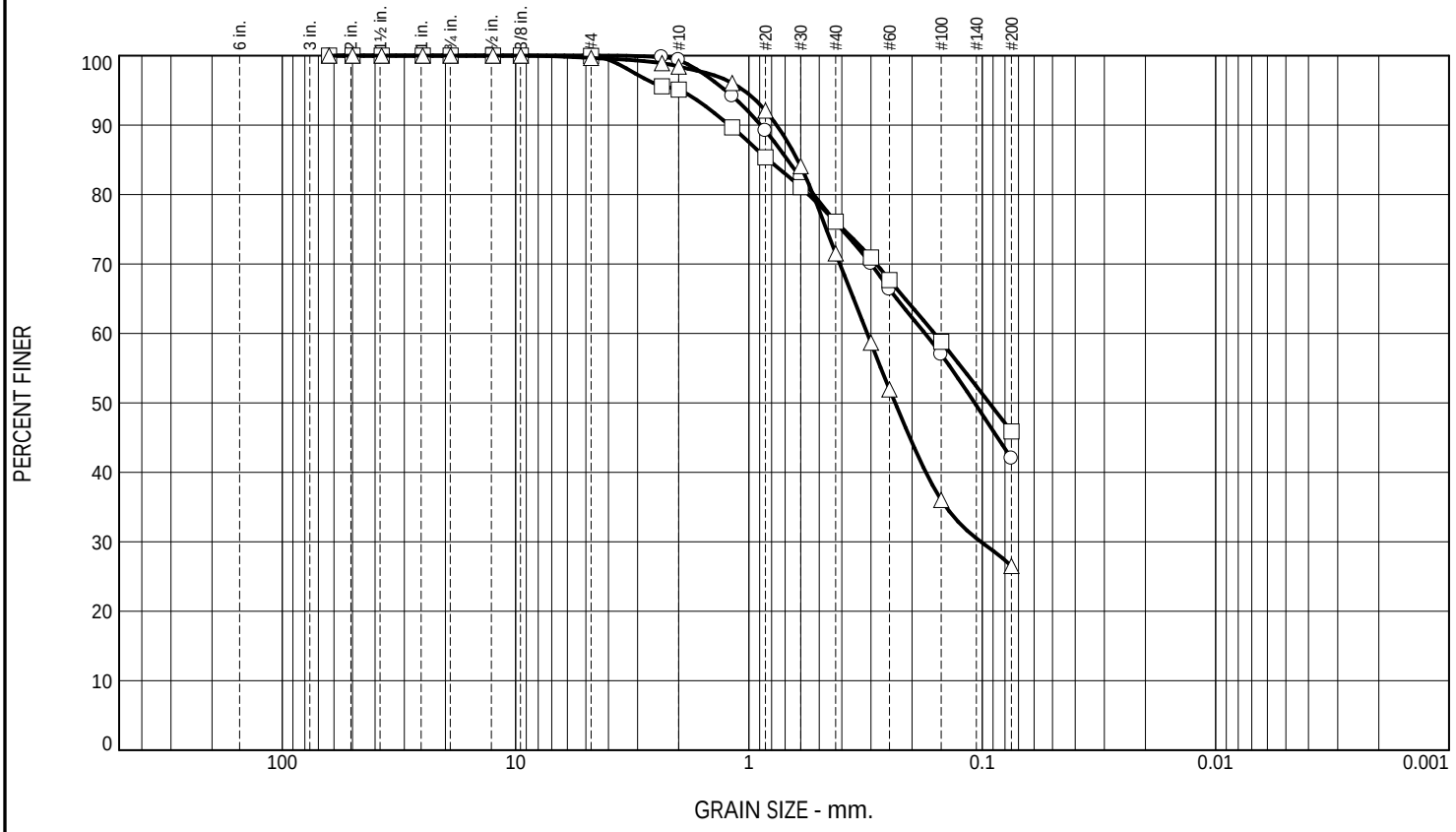
1. Exploratory borings were drilled on 5/22/2026 using a solid stem auger and split spoon sample.

2. No free water was encountered at the time of drilling or when re-checked the following day.

3. These logs are subject to the limitations, conclusions, and recommendations in this report.

4. Results of tests conducted on samples recovered are reported on the logs.

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
○	0.0	0.0	58.0	42.0		SM	A-7-5(4)	36	53
□	0.0	0.0	54.1	45.9		ML	A-7-6(3)	27	41
△	0.0	0.3	73.2	26.5		SC	A-2-4(0)	17	27

SIEVE inches size	PERCENT FINER ○	□	△
2.5	100.0	100.0	100.0
2	100.0	100.0	100.0
1.5	100.0	100.0	100.0
1	100.0	100.0	100.0
3/4	100.0	100.0	100.0
1/2	100.0	100.0	100.0
3/8	100.0	100.0	100.0
	GRAIN SIZE		
D_{60}	0.1761	0.1606	0.3111
D_{30}			0.1015
D_{10}			
	COEFFICIENTS		
C_c			
C_u			

SIEVE number size	PERCENT FINER ○	□	△
#4	100.0	100.0	99.7
#8	99.8	95.6	98.9
#10	99.4	95.1	98.4
#16	94.2	89.7	96.0
#20	89.2	85.4	92.1
#30	82.4	81.1	84.1
#40	76.0	76.1	71.5
#50	70.0	70.9	58.7
#60	66.3	67.7	51.9
#100	57.0	58.8	36.0
#200	42.0	45.9	26.5

Material Description
○ Red and Brown Silty Sand

□ Tan Silty Sand:

△ Tan Clayey Sand:

REMARKS:
○ Sample No. 24845

□ Sample No. 24846

△ Sample No. 24847

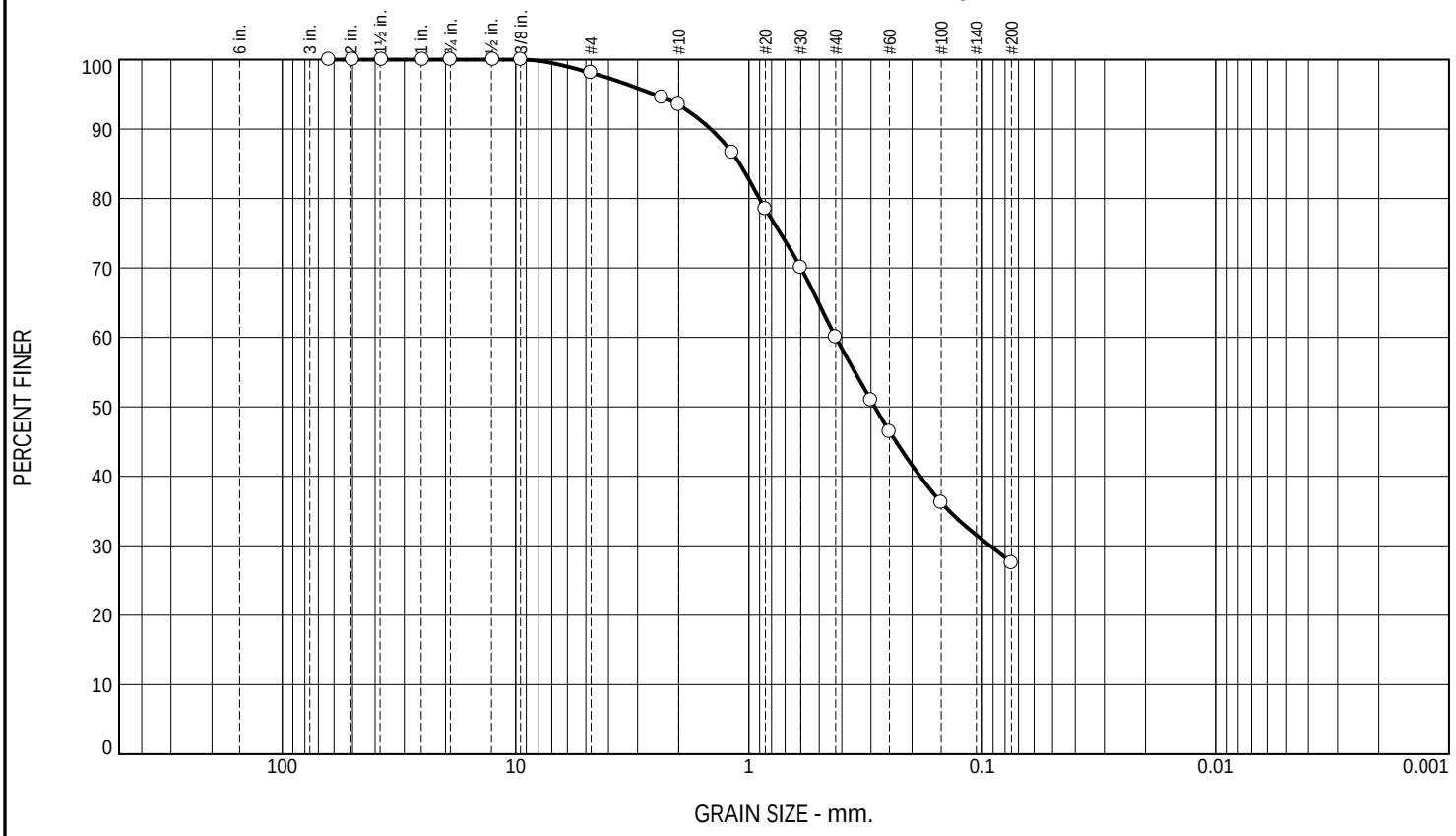
○ Source of Sample: B-13 Depth: 3.042
□ Source of Sample: B-14 Depth: 2.958
△ Source of Sample: B-15 Depth: 2.875

ACAI Construction Testing, LLC

Auburn, AL

Client: City of Auburn
Project: West Longleaf Drive Pavement Evaluation
Project No.: Figure

Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
○	0.0	1.9	70.6	27.5		SC	A-2-4(0)	19	27

SIEVE inches size	PERCENT FINER ○		
2.5	100.0		
2	100.0		
1.5	100.0		
1	100.0		
3/4	100.0		
1/2	100.0		
3/8	100.0		
	GRAIN SIZE		
D_{60}	0.4244		
D_{30}	0.0927		
D_{10}			
	COEFFICIENTS		
C_c			
C_u			

SIEVE number size	PERCENT FINER ○		
#4	98.1		
#8	94.5		
#10	93.5		
#16	86.6		
#20	78.5		
#30	70.1		
#40	60.0		
#50	51.0		
#60	46.4		
#100	36.2		
#200	27.5		

Material Description

○ Red Clayey Sand:

REMARKS:

○ Sample No. 24848

○ Source of Sample: B-16 Depth: 2.875

ACAI Construction Testing, LLC

Auburn, AL

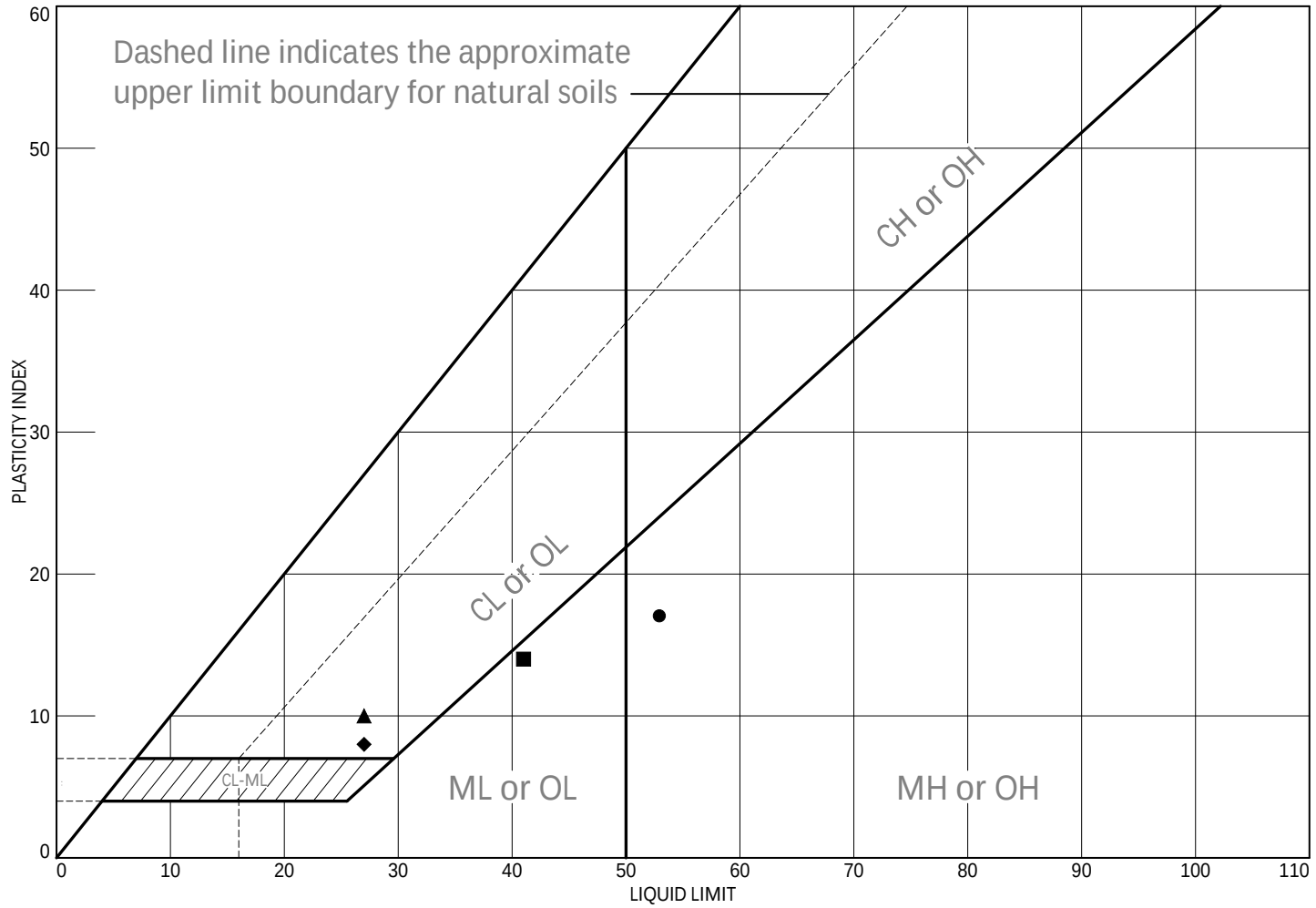
Client: City of Auburn

Project: West Longleaf Drive Pavement Evaluation

Project No.:

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Red and Brown Silty Sand	53	36	17	76.0	42.0	SM
■	Tan Silty Sand:	41	27	14	76.1	45.9	SM
▲	Tan Clayey Sand:	27	17	10	71.5	26.5	SC
◆	Red Clayey Sand:	27	19	8	60.0	27.5	SC

Project No. Client: City of Auburn

Project: West Longleaf Drive Pavement Evaluation

●Source of Sample: B-13 Depth: 3.567
■Source of Sample: B-14 Depth: 2.942
▲Source of Sample: B-15 Depth: 2.867
◆Source of Sample: B-16 Depth: 2.892

ACAI Construction Testing, LLC

Auburn, AL

Remarks:
●Sample No. 24845
■Sample No. 24846
▲Sample No. 24847
◆Sample No. 24848

Figure