ROY COOPER Governor MARY PENNY KELLEY Secretary RICHARD E. ROGERS, JR. Director



December 2, 2024

DWR # 20241176 Chatham County

NCDOT Division 8 Attn: Mr. Art King 121 DOT Drive Carthage, NC 28327

Delivered via email to: acking@ncdot.gov

Subject: APPROVAL of JORDAN LAKE RIPARIAN BUFFER IMPACTS WITH ADDITIONAL CONDITIONS

NCDOT Chatham Park Way South (R-5963A) on New Location from US 15/501, NC 87 to US

64 Business and Chatham Parkway, Town of Pittsboro.

Dear Mr. King:

You have our approval for the impacts listed below for the purpose described in your application received by the Division of Water Resources (Division) September 6, 2024. These impacts are covered by the Jordan Lake Riparian Buffer Rules and the conditions listed below. Please note that you should get any other federal, state or local permits before proceeding with your project, including those required by (but not limited to) Clean Water Act Section 404 and/or 401 Authorizations, Sediment and Erosion Control, Non-Discharge, and Water Supply Watershed regulations.

The following impacts are hereby approved, provided that all of the Conditions listed below and all of the conditions of the Jordan Lake Riparian Buffer Rules are met. No other impacts are approved, including incidental impacts. [15A NCAC 02B .0267(11)].

Jordan Lake Water Supply Watershed Riparian Buffer Impacts

Site	Zone 1 Impact (sq ft)	Zone 1 Impact Mitigable (sq ft)	Zone 2 Impact (sq ft)	Zone 2 Impact Mitigable (sq ft)
1- Roadway Fill- Parallel- Stream SQ		336		3,285
2-Bridge –1 @ 88' I-Beam- Stream SY- Allowable	12,400		7,993	
3- Bridge- Dual 120' Girder Bridge- Allowable	11,941		9,362	
4- Roadway Fill- Parallel- Stream SDDDD		450		2,751
Totals	24,341	786	17,355	6,036

^{*} n/a = Total for Site is less than 1/3 acre and 300 linear feet of impact, no mitigation required

Total Buffer Impact for Project: 48,518 square feet. Total Buffer Mitigation Required: 11,412 square feet.



This approval is for the purpose and design described in your application. The plans and specifications for this project are incorporated by reference as part of this Authorization Certificate. If you change your project, you must notify the Division and you may be required to submit a new application package. If the property is sold, the new owner must be given a copy of this Authorization Certificate and is responsible for complying with all conditions. [15A NCAC 02B .0267(11]

If you are unable to comply with any of the conditions below, you must notify the Raleigh Regional Office within 24 hours (or the next business day if a weekend or holiday) from the time the permittee becomes aware of the circumstances.

The permittee shall report to the Raleigh Regional Office any noncompliance with the conditions of this Authorization Certificate and/or any violation of state regulated riparian buffer rules [15A NCAC 02B .0267]. Information shall be provided orally within 24 hours (or the next business day if a weekend or holiday) from the time the applicant became aware of the circumstances.

Additional Conditions:

1. Mitigation for NCDOT Chatham Park Way South (R-5963A) for must be provided for the proposed impacts as specified in the tables below. The Division has received an acceptance letter from the NC Division of Mitigation Services (DMS) to meet this mitigation requirement. Until the DMS receives and clears your payment, and proof of payment has been provided to this Office, no impacts specified in this Authorization Certificate shall occur. For accounting purposes, this Authorization Certificate authorizes payment to the DMS to meet the following compensatory mitigation requirement:

	Compensatory Mitigation Required	River & Sub-basin Number
Buffers	11,412 square feet	Cape Fear (03030002)

Citation: 15A NCAC 02H .0506(c)

2. NCDOT shall submit final construction plans for the Chatham Park Way South (R-5963A) portion of this project for review and approval by DWR. The final design of Chatham Park Way shall follow the NCDOT Post-Construction Stormwater Plan and Stormwater Best Management Practices Toolbox and that all stormwater measures shall be properly inspected and maintained in accordance with NCDOT's National Pollutant Discharge Elimination System (NPDES) stormwater permit NCS000250.

Citation: 15A NCAC 02H .0502 (a) and 15A NCAC 02H .0506 (b)(1)

3. NCDOT shall schedule and conduct a pre-construction meeting with the construction contractors, NCDOT staff, and Division staff to review the conditions and requirements of the respective certifications and permits for clarity and understanding before *any* impacts authorized in this Certification occur.

Citation: 15A NCAC 02H .0507 (c) and 15A NCAC 02H .0502 (e) and 15A NCAC 02H .0506 (b)(3)

This approval and its conditions are final and binding unless contested. [G.S. 143-215.5]

NCDOT Division 8 DWR# 20241176 Buffer Authorization Certificate Page 3 of 3

This Authorization Certificate can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) within sixty (60) calendar days. Requirements for filing a Petition are set forth in Chapter 150B of the North Carolina General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding requirements for filing a Petition and Petition forms may be accessed at http://www.ncoah.com/ or by calling the OAH Clerk's Office at (919) 431-3000.

One (1) copy of the Petition must also be served to the North Carolina Department of Environmental Quality:

William F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601

This Authorization Certificate neither grants nor affirms any property right, license, or privilege in any lands or waters, or any right of use in any waters. This Authorization Certificate does not authorize any person to interfere with the riparian rights, littoral rights, or water use rights of any other person, nor does it create any prescriptive right or any right of priority regarding any usage of water. This Authorization Certificate shall not be interposed as a defense in any action respecting the determination of riparian or littoral rights or other rights to water use. No consumptive user is deemed by virtue of this Authorization Certificate to possess any prescriptive or other right of priority with respect to any other consumptive user.

This Authorization shall expire when the corresponding 401 Water Quality Certification Approval DWR# 20241176 expires.

This letter completes the Division's review under the Jordan Lake Riparian Buffer Rules as described in 15A NCAC 02B.0267. Please contact Ryan Conchilla at 919-707-9111 or ryan.conchilla@deq.nc.gov if you have any questions or concerns.

Sincerely,

Signed by:

Susan Locklear —04351F033762414...

Richard E. Rogers, Director

Division of Water Resources

cc: Wille Sullivan, Kimley-Horn (via email)

Stephen Brumagin, USACE Charlotte Regulatory Field Office (via email)

Beth Harmon, Division of Mitigation Services (via email)

DWR 401 & Buffer Permitting Branch Electronic file

DIVISION DESIGN RALEIGH LET (DDRL)

RIGHT OF WAY FIELD CERTIFICATION

TIP No.	R-5963A	
WBS Element:	48599.2.3	
County:	Chatham	
Description:	Chatham Parkway	

In connection with the above-referenced project, I certify that there were:

- 1) No persons displaced for this project or that all individuals and families have been relocated to DSS housing, Comparable replacement housing has been made available to relocates in accordance with applicable Federal and State laws and regulations.
- 2) The steps relative to relocation advisory assistance and payments as required by current FHWA directive(s) covering the administration of the Highway Relocation Assistance Program have been taken, as required.
- 3) Any necessary utility easements have been acquired for utility relocations
- 4) Any land needed by NCDOT from any active or non-active Railroad Company has been acquired in accordance with all state and federal laws.

I further certify that one of the following has application:

_____1. All necessary right of way has been acquired or the State has legal right of physical possession of that right of way,

or

X 2. The acquisition or right of occupancy and use of a few remaining parcels is not complete, but all occupants of the residences on such parcels have had replacement housing made available to them in accordance with 49 CFR 24.204. I assure that, if the physical construction of the project proceeds, displaced persons who have not yet moved from the right of way will be protected against unnecessary inconvenience and disproportionate injury or any action coercive in nature. I believe that it will be in the best public interest to proceed with this project. The following information is provided regarding excepted parcels and will be provided in the contract documents. These parcels will require delays of entry noted as follows:

TIP/PARCEL	PROPERTY OWNER	REASON FOR DELAY REQUEST	RELO (Y/N)	DELAY OF ENTRY UNTIL
				August 31
R-5963A / 001	CPF, LLC	Appraisal in review	N	2025
R-5963A /				August 31
003Z	CP South, LLC	Apprisal in review	N	2025
R-5963A /				August 31
005Z	CP South, LLC	Appraisal in review	N	2025
		Coordinating to meet with property		August 31
R-5963A / 015	Bertha Foy Mann, Et Al	owner	N	2025

This certification assures compliance with all applicable Federal and State laws, rules and policies.

Date: 2/19/25 BRIAN ROGERS

AREA NEGOTIATOR

DIVISION RIGHT OF WAY AGENT

Date: 02/20/2025

BRAD BASS

─DocuSigned by:

Bradley D Bass

--85 CM PROPRIEER, RIGHT OF WAY UNIT

Brim Payor

ACCOUNTS RECEIVABLE AGREEMENTS





I acknowledge that upon execution of this Agreement, we must submit a down payment, if required.

I also acknowledge that we may pre-pay any portion of the estimated cost noted in this Agreement, prior to final billing by the Department.

Please refer to your Agreement's PAYMENT TERMS to correctly remit any payment due to the Department.

PAYMENT TERMS:	PAYMENT TIMING:
PAYMENT UPON AGREEMENT EXECUTION	Please submit the amount of agreed upon payment via one of the below methods, <u>once you have received notice of execution of the Agreement.</u>
PAYMENT PRIOR TO LETTING (OR START OF PHASE)	You will be notified by the Project Manager when payment will be due. Please remit payment within 60 days of notification.
PAYMENT UPON BILLING	The Department will bill at the completion of the Project (or when defined in the Agreement). All payments are due within 60 days of invoicing.

NOTE: You may pre-pay any portion of an estimated cost, prior to Departmental Billing. The Department will adjust final billing to account for any pre-payments made.

LATE PAYMENTS AND INTEREST RATES:

For payments not received within 60 days, the Department must charge a statutory interest rate of prime plus one percent (1%) on all Utility Relocation Agreements. For any other Receivable Agreement, the Department may charge a late fee and/or interest.

PAYMENT METHODS

1. SEND PAYMENT BY CHECK OR

MAIL TO:

NCDOT – Accounts Receivable 1514 Mail Service Center Raleigh, NC 27699-1514

INCLUDE:

- Agreement ID (10000xxxxx)
- WBS Element

2. SEND PAYMENT VIA ACH (Automated Clearinghouse)

Initiate ACH through your bank* and send an e-mail to:

- ✓ Shamorah Fountain sfountain1@ncdot.gov
- √ Kay Lee klee@ncdot.gov

INCLUDE:

- Agreement ID# (10000xxxxx)
- WBS Element
- Amount of Payment

*If you need NCDOT's Account information, contact Tammy Court at tlcourt@ncdot.gov

Failure to follow the above steps and remit payment per the terms in the Agreement may result in delays to project delivery. Please contact your Division Project Manager for questions regarding payment terms.

AGREEMENT OVERVIEW

NORTH CAROLINA

CHATHAM COUNTY DATE: 2/5/2025

PARTIES TO THE AGREEMENT: PROJECT NUMBERS:

NORTH CAROLINA DEPARTMENT TIP #: R-5963A

OF TRANSPORTATION

WBS ELEMENTS: CON 48599.3.2

AND

CHATHAM PARK INVESTORS LLC

The purpose of this Agreement is to identify the participation in project costs, project delivery and/or maintenance, by the other party to this Agreement, as further defined in this Agreement.

SCOPE OF TIP PROJECT ("Project"): This Project consists of constructing a new roadway location for Chatham Parkway from US 15/501 south of Pittsboro to US 64 Business.

ADDITIONAL WORK: At the request of Chatham Park Investors LLC, traffic signals will be upgraded from metal strain poles to mast arms with signals; three (3) planned retaining walls will include decorative façades; decorative concrete on three (3) bridges; and dry PVC conduits for future underground power and street lighting will be included.

ESTIMATED COST OF THE ADDITIONAL WORK: \$732,260

COSTS TO OTHER PARTY: \$732,260

PAYMENT TERMS: Chatham Park Investors LLC will submit payment upon execution of

agreement.

MAINTENANCE: Both the Department and Chatham Park Investors LLC

EFFECTIVE DATES OF AGREEMENT:

START: Upon Full Execution of this Agreement **END:** When work is complete and all terms are met.

This Agreement is made and entered into on the last date executed below, by and between the North Carolina Department of Transportation, an agency of the State of North Carolina, hereinafter referred to as the **Department** and Chatham Park Investors LLC, hereinafter referred to as the **Developer**; and collectively referred to as the **Parties**.

The **Parties** to this Agreement, listed above, intend that this Agreement, together with all attachments, schedules, exhibits, and other documents that are incorporated into this Agreement by reference, represents the entire understanding between the **Parties** with respect to its subject matter and supersedes any previous communication or agreements that may exist.

I. WHEREAS STATEMENTS

WHEREAS, this Agreement is made under the authority granted to the **Department** by the North Carolina General Assembly under General Statutes of North Carolina (NCGS), particularly Chapter 136-66.1 and 136-66.3; and,

WHEREAS, the **Department** and the **Developer** have agreed that the limits of the **Parties** imposed by applicable law as of the date of entering this Agreement are to be used in determining the duties, responsibilities, rights, and legal obligations of the **Parties** hereto for the purposes of, and to the extent consistent with the terms and conditions set forth in, this Agreement; and,

WHEREAS, the **Developer** has requested that the **Department** perform all phases of said work or provide services; and,

WHEREAS, the **Parties** hereto wish to enter into an agreement for scoped work to be performed or provided by the **Department** (including reviews, goods, or services) with reimbursement for the costs thereof by the **Developer** as hereinafter set out.

NOW, THEREFORE, this Agreement states the promises and undertakings of each party as herein provided, and the **Parties** do hereby covenant and agree, each with the other, as follows:

II. RESPONSIBILITIES

A. DEPARTMENT

The **Department** shall be responsible for all phases of project delivery to include planning, design, right of way acquisition, utility relocation, construction and maintenance as shown in the **PROJECT DELIVERY** Provision.

B. DEVELOPER

The **Developer** shall be responsible for maintenance as shown in the **PROJECT DELIVERY** Provision and payment as shown in the **COSTS AND FUNDING** Provision.

III. PROJECT DELIVERY REQUIREMENTS

A. PLANNING, DESIGN, AND CONSTRUCTION

- i. The **Department** will be responsible for preparing the environmental and/or planning document and obtaining any environmental permits.
- ii. The **Department** will be responsible for preparing the project plans and specifications and letting the Project to construction.

iii. The **Department** shall construct the Project in accordance with the plans and specifications for the Project. The **Department** shall administer the construction contract for said Project. All work shall be done in accordance with Departmental standards, specifications, policies, and procedures.

B. RIGHT OF WAY ACQUISITION

The **Department** will be responsible for acquiring any needed right of way required for the Project in accordance with the policies and procedures set forth in the North Carolina Right of Way Manual.

C. MUNICIPAL UTILITY RELOCATIONS

Responsibilities

It is understood that there are no municipally-owned water and sewer lines to be adjusted or relocated at this time. If during the project it becomes necessary to adjust or relocate municipally-owned water and/or sewer lines, a separate Utility Agreement will be prepared at the appropriate time.

D. MAINTENANCE

Upon completion of the Project:

- i. Should a mast arm need to be replaced, the **Department** will attempt to acquire a similar colored metal pole with mast arms to replace it. The **Developer** will be responsible for the cost difference between galvanized pole with strain wires and colored metal pole with mast arms. If colored metal pole with mast arms is not readily available, **Department** will use galvanized pole/pedestal with strain wires for the replacement as restoring the operation of the signal is priority. Should the **Developer** desire to replace a galvanized pole/pedestal with strain wires, they shall be responsible for material and installation costs.
- ii. The **Department** shall be responsible for all traffic operating controls and devices which shall be established, enforced, and installed and maintained in accordance with the North Carolina General Statutes, the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, the latest edition of the "Policy on Street and Driveway Access to North Carolina Highway," and department criteria.
- iii. The roadway improvements that are within state-owned right of way shall be considered a part of the State Highway System and shall be owned and maintained by the **Department**. The **Department** will also maintain all retaining walls.

IV. COSTS AND FUNDING

A. ADDITIONAL WORK

At the request of the **Developer** and in accordance with the **Department's** Pedestrian Policy Guidelines or the Complete Streets Guidelines, the **Department** shall include provisions in its construction contract for the construction of pedestrian facilities and/or other additional work as indicated in the Table below. Said work shall be performed in accordance with the **Department's** policies, procedures, standards, and specifications, and the provisions of this Agreement.

Description	Co	ost to Developer
Upgrade signal from metal strain poles to mast arms with color (2)	\$	150,000
Retaining Wall #1	\$	37,500
Retaining Wall #2	\$	37,500
Retaining Wall #3	\$	30,500
Bridge Upgrades – Decorative Concrete	\$	300,000
2", 4", & 6" Dry PVC Conduits (Underground Power & Streetlights)	\$	176,760
Total Estimated Cost to Developer	\$	732,260

The estimated Developer's share of the additional work is \$732,260. The **Parties** understand that this is an estimated cost and subject to change.

B. PROJECT COSTS

The **Developer** has agreed to participate in the Project costs as follows:

- i. The estimated cost of the additional work is \$732,260. The **Developer** shall participate in 100% of actual costs. The **Department** will participate in 0% of actual costs.
- ii. The **Department** may consult with the **Developer** on changes to cost estimates prior to construction, or changes to costs during construction. Consultation between the **Department** and the **Developer** is offered as a courtesy to apprise the **Developer** of potential cost increases and to allow appropriate budgeting. Failure of the **Department** to notify the **Developer** of cost increases does not affect the payment terms of the agreement.

C. PAYMENT BY THE DEVELOPER

i. Based on the estimated cost of \$732,260 the **Developer** shall submit payment for \$732,260 to the **Department's** Fiscal Section upon full execution of this Agreement in accordance with the attached "Remittance Guidance".

ii. Upon completion of the Project, if actual costs exceed the amount of the down payment, the **Developer** shall reimburse the **Department** any underpayment within sixty (60) days of invoicing by the **Department**. The **Department** will charge a late payment penalty and interest on any unpaid balance due in accordance with G. S. 147-86.23. If the actual cost of the work is less than \$732,260, the **Department** will reimburse the **Developer** any overpayment.

V. STANDARD PROVISIONS

A. AGREEMENT MODIFICATIONS

Any modification to scope, funding, responsibilities, or time frame will be agreed upon by all **Parties** by means of a written Supplemental Agreement.

B. ASSIGNMENT OF RESPONSIBILITIES

The **Department** must approve any assignment or transfer of the responsibilities of the **Developer** set forth in this Agreement to other parties or entities.

C. AGREEMENT FOR IDENTIFIED PARTIES ONLY

This Agreement is solely for the benefit of the identified **Parties** to the Agreement and is not intended to give any rights, claims, or benefits to third parties or to the public at large.

D. OTHER AGREEMENTS

The **Developer** is solely responsible for all agreements, contracts, and work orders entered into or issued by the **Developer** to meet the terms of this Agreement. The **Department** is not responsible for any expenses or obligations incurred by the **Developer** for the terms of this Agreement except those specifically eligible for the funds and obligations as approved by the **Department** under the terms of this Agreement.

E. TITLE VI

The other party to this Agreement shall comply with Title VI of the Civil Rights Act of 1964 (Title 49 CFR, Subtitle A, Part 21) and related nondiscrimination authorities. Title VI and related authorities prohibit discrimination on the basis of race, color, national origin, disability, gender, and age in all programs or activities of any recipient of Federal assistance.

F. FACSIMILE

A copy or facsimile copy of the signature of any party shall be deemed an original with each fully executed copy of the Agreement as binding as an original, and the **Parties** agree that this Agreement can be executed in counterparts, as duplicate originals, with facsimile signatures sufficient to evidence an agreement to be bound by the terms of the Agreement.

G. AUTHORIZATION TO EXECUTE

The **Parties** hereby acknowledge that the individual executing this Agreement has read this Agreement, conferred with legal counsel, fully understands its contents, and is authorized to execute this Agreement and to bind the respective **Parties** to the terms contained herein.

H. DEBARMENT POLICY

It is the policy of the **Department** not to enter into any agreement with parties that have been debarred by any government agency (Federal or State). By execution of this agreement, the **Developer** certifies that neither it nor its agents or contractors are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal or State Agency or Department and that it will not enter into agreements with any entity that is debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction.

I. INDEMNIFICATION

To the extent authorized by state and federal claims statutes, the **Developer** shall be responsible for its actions under the terms of this agreement and save harmless the FHWA (if applicable), the **Department**, and the State of North Carolina, their respective officers, directors, principals, employees, agents, successors, and assigns from and against any and all claim for payment, damages and/or liabilities of any nature, asserted against the **Department** in connection with the **Developer's** negligence and/or responsibilities under the terms of this Agreement. The **Department** shall not be liable and shall be held harmless from any and all third-party claims that might arise on account of the **Developer's** negligence and/or responsibilities under the terms of this agreement.

J. AVAILABILITY OF FUNDS

All terms and conditions of this Agreement are dependent upon, and, subject to the allocation of funds for the purpose set forth in the Agreement and the Agreement shall automatically terminate if funds cease to be available.

K. DOCUSIGN

The **Department** and **Developer** acknowledge and agree that the electronic signature application DocuSign may be used, at the sole election of the **Department** or the **Developer**, to execute this Agreement. By selecting "I Agree", "I Accept", or other similar item, button, or icon via use of a keypad, mouse, or other device, as part of the DocuSign application, the **Department** and **Developer** consent to be legally bound by the terms and conditions of Agreement and that such act constitutes **Department's** signature as if actually signed by the **Developer** in writing. The **Department** and **Developer** also agree that no certification authority or other third-party verification is necessary to validate its electronic signature and that the lack of such certification or third-party verification will not in any way affect the enforceability of its electronic signature. The **Department** and **Developer** acknowledge and agree that delivery of a copy of this Agreement or any other document contemplated hereby through the DocuSign application, will have the same effect as physical delivery of the paper document bearing an original written signature.

L. GIFT BAN

By Executive Order 24, issued by Governor Perdue, and NCGS 133-32, it is unlawful for any vendor or contractor (i.e. architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's Cabinet Agencies (i.e. Administration, Adult Corrections, Commerce, Environmental Quality, Health and Human Services, Information Technology, Military and Veterans Affairs, Natural and Cultural Resources, Public Safety, Revenue, Transportation, and the Office of the Governor).

SIGNATURE PAGE

IN WITNESS WHEREOF, this Agreement has been executed the day and year heretofore set out, on the part of the **Department** and the **Developer** by authority duly given.

	(DOCUSIGN ONLY) Signed by:
	Authorized Signer: Smth
	Print Name: Tim Smith
	Title: vice president
	Date Signed: 02/05/2025
	If applicable, this Agreement has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act:
CHATHAM PARK INVESTORS LLC	De a Characteria
FED TAX ID NO: 20-1961090	Finance Officer: DocuSigned by:
REMITTANCE ADDRESS:	Print Name: Glenn Russell
105 Weston Estates Way	Date Signed: 02/05/2025
Cary, NC 27513	
	DEPARTMENT OF TRANSPORTATION BY: Lamar Sylvester
	EF11EAF2524D443
	TITLE: Chief Engineer
	DATE: 02/10/2025
	Initial
APPROVED BY BOARD OF TRANSPO	ORTATION ITEM O: 2/6/2025 (DATE)

SIGNATURE PAGE

IN WITNESS WHEREOF, this Agreement has been executed the day and year heretofore set out, on the part of the **Department** and the **Developer** by authority duly given.

(INK SIGNATURES ONLY)

ATTEST:	Authorized Signer:
BY:	Print Name:
TITLE:	Title:
	Date Signed:
	If applicable, this Agreement has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act:
CHATHAM PARK INVESTORS LLC	
FED TAX ID NO:	Finance Officer:
REMITTANCE ADDRESS:	Print Name:
	DEPARTMENT OF TRANSPORTATION (DocuSign)
	BY:
	TITLE:
	DATE:
APPROVED BY BOARD OF TRANSP	ORTATION ITEM O: (DATE)

ACCOUNTS RECEIVABLE AGREEMENTS





I acknowledge that upon execution of this Agreement, we must submit a down payment, if required.

Talso acknowledge that we may pre-pay any portion of the estimated cost noted in this Agreement, prior to final billing by the Department.

Please refer to your Agreement's PAYMENT TERMS to correctly remit any payment due to the Department.

PAYMENT TERMS:	PAYMENT TIMING:
PAYMENT UPON AGREEMENT EXECUTION	Please submit the amount of agreed upon payment via one of the below methods, <u>once you have received notice of execution of the Agreement.</u>
PAYMENT PRIOR TO LETTING (OR START OF PHASE)	You will be notified by the Project Manager when payment will be due. Please remit payment within 60 days of notification.
PAYMENT UPON BILLING	The Department will bill at the completion of the Project (or when defined in the Agreement). All payments are due within 60 days of invoicing.

NOTE: You may pre-pay any portion of an estimated cost, prior to Departmental Billing. The Department will adjust final billing to account for any pre-payments made.

LATE PAYMENTS AND INTEREST RATES:

For payments not received within 60 days, the Department must charge a statutory interest rate of prime plus one percent (1%) on all Utility Relocation Agreements. For any other Receivable Agreement, the Department may charge a late fee and/or interest.

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MAIL TO:

NCDOT – Accounts Receivable 1514 Mail Service Center Raleigh, NC 27699-1514

INCLUDE:

- Agreement ID (10000xxxxx)
- WBS Element

2. SEND PAYMENT VIA ACH (Automated Clearinghouse)

Initiate ACH through your bank* and send an e-mail to:

- ✓ Shamorah Fountain sfountain1@ncdot.gov
- √ Kay Lee klee@ncdot.gov

INCLUDE:

- Agreement ID# (10000xxxxx)
- WBS Element
- Amount of Payment

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Failure to follow the above steps and remit payment per the terms in the Agreement may result in delays to project delivery. Please contact your Division Project Manager for questions regarding payment terms.

AGREEMENT OVERVIEW

NORTH CAROLINA

CHATHAM COUNTY DATE: 2/5/2025

PARTIES TO THE AGREEMENT: PROJECT NUMBERS:

NORTH CAROLINA DEPARTMENT TIP #: R-5963A

OF TRANSPORTATION

WBS ELEMENTS: PE 48599.1.2

AND CON 48599.3.2

CHATHAM PARK INVESTORS LLC

The purpose of this Agreement is to identify the participation in project costs, project delivery and/or maintenance, by the other party to this Agreement, as further defined in this Agreement.

SCOPE OF TIP PROJECT ("Project"): This Project consists of constructing a new roadway location for Chatham Parkway from US 15/501 south of Pittsboro to US 64 Business.

ADDITIONAL WORK: At the request of Chatham Park Investors LLC, the Department will include utility design and construction of a 12" waterline and appurtenances, and a 24" sanitary sewer casing.

ESTIMATED COST OF THE ADDITIONAL WORK: \$ 1,621,026.56

ESTIMATED COST TO OTHER PARTY (PE): \$ 40,026.56 ESTIMATED COSTS TO OTHER PARTY (CON): \$ 1,581,000.00

DEPARTMENT'S FUNDING: \$0

PAYMENT TERMS: Chatham Park Investors LLC will submit payment upon execution of agreement.

MAINTENANCE: Chatham Park Investors LLC

EFFECTIVE DATES OF AGREEMENT:

START: Upon Full Execution of this Agreement **END:** When work is complete and all terms are met.

This Agreement is made and entered into on the last date executed below, by and between the North Carolina Department of Transportation, an agency of the State of North Carolina, hereinafter referred to as the **Department** and the Chatham Park Investors LLC, hereinafter referred to as the **Developer**; and collectively referred to as the **Parties**.

The **Parties** to this Agreement, listed above, intend that this Agreement, together with all attachments, schedules, exhibits, and other documents that are incorporated into this Agreement by reference, represents the entire understanding between the **Parties** with respect to its subject matter and supersedes any previous communication or agreements that may exist.

I. WHEREAS STATEMENTS

WHEREAS, this Agreement is made under the authority granted to the **Department** by the North Carolina General Assembly under General Statutes of North Carolina (NCGS), particularly Chapter 136-66.1 and 136-66.3; and,

WHEREAS, the **Department** and the **Developer** have agreed that the limits of the **Parties** imposed by applicable law as of the date of entering this Agreement are to be used in determining the duties, responsibilities, rights, and legal obligations of the **Parties** hereto for the purposes of, and to the extent consistent with the terms and conditions set forth in, this Agreement; and,

WHEREAS, the **Developer** has requested that the **Department** perform all phases of said work or provide services; and,

WHEREAS, the **Parties** hereto wish to enter into an agreement for scoped work to be performed or provided by the **Department** (including reviews, goods, or services) with reimbursement for the costs thereof by the **Developer** as hereinafter set out.

NOW, THEREFORE, this Agreement states the promises and undertakings of each party as herein provided, and the **Parties** do hereby covenant and agree, each with the other, as follows:

II. RESPONSIBILITIES

A. DEPARTMENT

The **Department** shall be responsible for all phases of project delivery to include planning, design, right of way acquisition, utility relocation, and construction as shown in the **PROJECT DELIVERY** Provision.

B. DEVELOPER

The **Developer** shall be responsible for maintenance as shown in the **PROJECT DELIVERY** Provision and payment as shown in the **COSTS AND FUNDING** Provision.

III. PROJECT DELIVERY REQUIREMENTS

A. PRELIMINARY ENGINEERING

The **Department** will prepare plans for the additional work requested by the **Developer**. The **Department** will be responsible for entering into any contracts or agreements with professional engineering firms (PEFs) to perform said planning and design. All work shall be performed in accordance with the **Department's** policies, procedures, standards, and specifications, and the provisions of this Agreement.

A. PLANNING, DESIGN, AND CONSTRUCTION

- i. The **Department** will be responsible for preparing the environmental and/or planning document and obtaining any environmental permits.
- ii. The **Department** will be responsible for preparing the project plans and specifications and letting the Project to construction.
- iii. The **Department** shall construct the Project in accordance with the plans and specifications for the Project. The **Department** shall administer the construction contract for said Project. All work shall be done in accordance with Departmental standards, specifications, policies, and procedures.

B. RIGHT OF WAY ACQUISITION

The **Department** will be responsible for acquiring any needed right of way required for the Project in accordance with the policies and procedures set forth in the North Carolina Right of Way Manual.

C. MUNICIPAL UTILITY RELOCATIONS

Responsibilities

It is understood that there are no municipally-owned water and sewer lines to be adjusted or relocated at this time. If during the project it becomes necessary to adjust or relocate municipally-owned water and/or sewer lines, a separate Utility Agreement will be prepared at the appropriate time.

D. MAINTENANCE

Upon completion of the Project:

- The **Developer** shall be responsible for entering into an agreement to transfer the maintenance of the waterline, appurtenances, and sanitary sewer casing to the applicable municipal authority, utility company, or other appropriate person or entity.
- ii. The **Department** shall be responsible for all traffic operating controls and devices which shall be established, enforced, and installed and maintained in accordance with the North Carolina General Statutes, the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, the latest edition of the "Policy on Street and Driveway Access to North Carolina Highway," and department criteria.
- iii. The roadway improvements that are within state-owned right of way shall be considered a part of the State Highway System and shall be owned and maintained by the **Department**.

IV. COSTS AND FUNDING

A. ADDITIONAL WORK

At the request of the **Developer** and in accordance with the **Department's** Pedestrian Policy Guidelines or the Complete Streets Guidelines, the **Department** shall include provisions in its construction contract for the construction of pedestrian facilities and/or other additional work as indicated in the Table below. Said work shall be performed in accordance with the **Department's** policies, procedures, standards, and specifications, and the provisions of this Agreement.

Description	Co	ost to Developer
Design of 12" Waterline & Appurtenances and 24" Sanitary Sewer Casing	\$	40,026.56
Construction of 12" Waterline and Appurtenances	\$	1,500,000.00
Construction of 24" Sanitary Sewer Casing	\$	81,000
Total Estimated Cost to Developer	\$	1,621,026.56

The estimated Municipal share of the additional work is \$1,621,026.56. The **Parties** understand that this is an estimated cost and subject to change.

B. PROJECT COSTS

The **Developer** has agreed to participate in the Project costs as follows:

- i. The estimated cost of the additional work is \$1,621,026.56. The **Developer** shall participate in 100% of actual costs. The **Department** will participate in 0% of actual costs.
- ii. The **Department** may consult with the **Developer** on changes to cost estimates prior to construction, or changes to costs during construction. Consultation between the **Department** and the **Developer** is offered as a courtesy to apprise the **Developer** of potential cost increases and to allow appropriate budgeting. Failure of the **Department** to notify the **Developer** of cost increases does not affect the payment terms of the agreement.

C. PAYMENT BY THE DEVELOPER

- i. Based on the estimated cost of \$1,621,026.56 the **Developer** shall submit payment for \$1,621,026.56 to the **Department's** Fiscal Section upon full execution of this Agreement in accordance with the attached "Remittance Guidance".
- ii. Upon completion of the Project, if actual costs exceed the amount of the down payment, the **Developer** shall reimburse the **Department** any underpayment within sixty (60) days of invoicing by the **Department**. The **Department** will charge a late payment penalty and

interest on any unpaid balance due in accordance with G. S. 147-86.23. If the actual cost of the work is less than \$1,621,026.56, the **Department** will reimburse the **Developer** any overpayment.

V. STANDARD PROVISIONS

A. AGREEMENT MODIFICATIONS

Any modification to scope, funding, responsibilities, or time frame will be agreed upon by all **Parties** by means of a written Supplemental Agreement.

B. ASSIGNMENT OF RESPONSIBILITIES

The **Department** must approve any assignment or transfer of the responsibilities of the **Developer** set forth in this Agreement to other parties or entities; provided, however, such approval from **Department** shall in no event be unreasonably withheld, conditioned, or delayed. Notwithstanding anything in this Agreement to the contrary, (i) **Developer** shall have the right to (without any requirement for consent or approval from **Department**) assign **Developer's** maintenance responsibilities and obligations under this Agreement to the applicable municipal authority, utility company, or other appropriate person/entity (e.g. property owner association), and (ii) following the date of any such assignment, Developer shall be released from, and have no liability with respect to, the maintenance responsibilities/obligations so assigned.

C. AGREEMENT FOR IDENTIFIED PARTIES ONLY

This Agreement is solely for the benefit of the identified **Parties** to the Agreement and is not intended to give any rights, claims, or benefits to third parties or to the public at large.

D. OTHER AGREEMENTS

The **Developer** is solely responsible for all agreements, contracts, and work orders entered into or issued by the **Developer** to meet the terms of this Agreement. The **Department** is not responsible for any expenses or obligations incurred by the **Developer** for the terms of this Agreement except those specifically eligible for the funds and obligations as approved by the **Department** under the terms of this Agreement.

E. TITLE VI

The other party to this Agreement shall comply with Title VI of the Civil Rights Act of 1964 (Title 49 CFR, Subtitle A, Part 21) and related nondiscrimination authorities. Title VI and related authorities prohibit discrimination on the basis of race, color, national origin, disability, gender, and age in all programs or activities of any recipient of Federal assistance.

F. FACSIMILE

A copy or facsimile copy of the signature of any party shall be deemed an original with each fully executed copy of the Agreement as binding as an original, and the **Parties** agree that this Agreement can be executed in counterparts, as duplicate originals, with facsimile signatures sufficient to evidence an agreement to be bound by the terms of the Agreement.

G. AUTHORIZATION TO EXECUTE

The **Parties** hereby acknowledge that the individual executing this Agreement has read this Agreement, conferred with legal counsel, fully understands its contents, and is authorized to execute this Agreement and to bind the respective **Parties** to the terms contained herein.

H. DEBARMENT POLICY

It is the policy of the **Department** not to enter into any agreement with parties that have been debarred by any government agency (Federal or State). By execution of this agreement, the **Developer** certifies that neither it nor its agents or contractors are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal or State Agency or Department and that it will not enter into agreements with any entity that is debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction.

I. INDEMNIFICATION

To the extent authorized by state and federal claims statutes, the **Developer** shall be responsible for its actions under the terms of this agreement and save harmless the FHWA (if applicable), the **Department**, and the State of North Carolina, their respective officers, directors, principals, employees, agents, successors, and assigns from and against any and all claim for payment, damages and/or liabilities of any nature, asserted against the **Department** in connection with the **Developer's** negligence and/or responsibilities under the terms of this Agreement. The **Department** shall not be liable and shall be held harmless from any and all third-party claims that might arise on account of the **Developer's** negligence and/or responsibilities under the terms of this agreement.

J. AVAILABILITY OF FUNDS

All terms and conditions of this Agreement are dependent upon, and, subject to the allocation of funds for the purpose set forth in the Agreement and the Agreement shall automatically terminate if funds cease to be available.

K. DOCUSIGN

The **Department** and **Developer** acknowledge and agree that the electronic signature application DocuSign may be used, at the sole election of the **Department** or the **Developer**,

to execute this Agreement. By selecting "I Agree", "I Accept", or other similar item, button, or icon via use of a keypad, mouse, or other device, as part of the DocuSign application, the **Department** and **Developer** consent to be legally bound by the terms and conditions of Agreement and that such act constitutes **Department's** signature as if actually signed by the **Developer** in writing. The **Department** and **Developer** also agree that no certification authority or other third-party verification is necessary to validate its electronic signature and that the lack of such certification or third-party verification will not in any way affect the enforceability of its electronic signature. The **Department** and **Developer** acknowledge and agree that delivery of a copy of this Agreement or any other document contemplated hereby through the DocuSign application, will have the same effect as physical delivery of the paper document bearing an original written signature.

L. GIFT BAN

By Executive Order 24, issued by Governor Perdue, and NCGS 133-32, it is unlawful for any vendor or contractor (i.e. architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's Cabinet Agencies (i.e. Administration, Adult Corrections, Commerce, Environmental Quality, Health and Human Services, Information Technology, Military and Veterans Affairs, Natural and Cultural Resources, Public Safety, Revenue, Transportation, and the Office of the Governor).

VI. SPECIAL PROVISIONS

A. DEVELOPER TERMINATION RIGHT

Notwithstanding anything the contrary contained in this Agreement, (i) the parties hereto agree and acknowledge that it is **Developer's** intent to, on or before the date that the **Department** awards contract(s) for the construction of the Additional Work contemplated herein (the "Award Date"),assign and/or transfer **Developer's** maintenance responsibilities hereunder to the applicable person or entity in accordance with Section III.D.i. or V.B. above (the "Developer Assignment"), (ii) in the event the Developer Assignment has not occurred on or before the Award Date, **Developer** shall have the right to, upon written notice delivered to the **Department** at any time prior to the Award Date, terminate this Agreement, and (iii) in the event of such termination effectuated by **Developer**, this Agreement and the rights and obligations of the parties hereunder shall terminate, except that **Department** shall be obligated to promptly reimburse **Developer** for all sums received by **Department** from **Developer** hereunder that have not, as of such termination date, already been expended by **Department** in connection with the Additional Work contemplated herein.

SIGNATURE PAGE

IN WITNESS WHEREOF, this Agreement has been executed the day and year heretofore set out, on the part of the **Department** and the **Developer** by authority duly given.

	(DOCUSIGN ONLY) Signed by:
	Authorized Signer: Smith
	Print Name: Tim Smith
	Title: vice president
	Date Signed: 02/05/2025
	If applicable, this Agreement has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act:
CHATHAM PARK INVESTORS LLC	— DocuSigned by:
FED TAX ID NO: 20-1961090	Finance Officer: Mu Russell
REMITTANCE ADDRESS:	Print Name: Glenn Russell
105 Weston Estates Way	Date Signed: 02/05/2025
Cary NC 27513	
	DEPARTMENT OF TRANSPORTATION
	BY: Lamar Sylvester
	TITLE: Chief Engineer
	DATE: 02/10/2025
APPROVED BY BOARD OF TRANSPO	DRTATION ITEM O: 2/6/2025 (DATE)

SIGNATURE PAGE

IN WITNESS WHEREOF, this Agreement has been executed the day and year heretofore set out, on the part of the **Department** and the **Developer** by authority duly given.

(INK SIGNATURES ONLY)

ATTEST:	Authorized Signer:
BY:	Print Name:
TITLE:	Title:
	Date Signed:
	If applicable, this Agreement has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act:
CHATHAM PARK INVESTORS LLC	
FED TAX ID NO:	Finance Officer:
REMITTANCE ADDRESS:	Print Name:
	Date Signed:
	DEPARTMENT OF TRANSPORTATION (DocuSign)
	BY:
	TITLE:
	DATE:
APPROVED BY BOARD OF TRANSP	ORTATION ITEM O: (DATE)



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Josh Stein J.R. "Joey" Hopkins

Governor Secretary

MEMO TO: Jeffrey A. Stroder, PE

FROM: Shihai Zhang, PE

Shihai Ehang

SUBJECT: Final Pavement Design

ign — 245D67F41811435

R-5963A, 48599.1.1

Chatham Parkway From US-15/501 South of Pittsboro to US-64 Bus.

Chatham County, Division 8

DATE: February 11, 2025

The pavement designs for the above project are as follows:

Line	Surface	Intermed.	Base	ABC	Stab.
L (Chatham Parkway)	3.0" S9.5C	4.0" I19.0C	3.0" B25.0C	-	Yes
RBT	3.0" S9.5C	4.0" I19.0C	3.0" B25.0C	-	Yes
Y1 (US-15/501)	3.0" S9.5C	4.0" I19.0C	4.0" B25.0C	-	No
Y7 (SR-1012) Moncure Pitsboro Rd.	3.0" S9.5C	4.0" I19.0C	4.0" B25.0C	-	No
Y14 (US-64 BUS)	3.0" S9.5C	4.0" I19.0C	4.0" B25.0C	-	No
Y16 (SR-1943) Hanks Chapel Rd.	3.0" S9.5C	4.0" I19.0C	4.0" B25.0C	-	No

For Y1, mill the existing pavement to remain in place 2.5" and replace with 2.5" I19.0C, and then overlay with 3.0" S9.5C.

For Y7, Y14, and Y16, overlay the existing pavement to remain in place with 1.5" S9.5C. 1.5" Milling may be performed in areas where the grade must be maintained.

Shoulder drains are not required for this project.

For RBT: 12" Jointed Concrete Truck Apron

w/ welded wire mesh (4x4 W5.5 x W5.5 or 6x6 W8.5 x W8.5 or heavier)

3.0" B25.0C

Subgrade Stabilization 15' radial joint spacing

See Recommendations for Pavement and Subgrade - REV dated January 30, 2025 for additional recommendations, quantities and details. Note, the stabilization listed in the table above references chemical stabilization or Aggregate Subgrade Type I, depending on the station range.

This project will be signed and sealed by Andrew D. Wargo, Ph.D. PE.

If any additional information is needed, please contact Andrew D. Wargo, Ph.D. PE, Pavement Design/Analysis Engineer at 919-329-4017, or Shihai Zhang, PE, State Pavement Design Engineer at 919-329-4018.

SZ/adw

cc: Ms. Leigh M. Wing, PE Dr. Joseph E. Hummer, PE
Mr. Reuben Blakley, PE Mr. Matt Alexander, PE

Ms. Tatia L. White, PE, PLS, CPM

Mr. Troy B. Brooks, PE

Mailing Address:	Telephone: (919) 329-4000	Location:
NC DEPARTMENT OF TRANSPORTATION	Fax: (919) 733-8742	1801 BLUE RIDGE ROAD
MATERIALS AND TESTS UNIT	Customer Service: 1-877-368-4968	RALEIGH, NC 27607
1563 MAIL SERVICE CENTER		
RALEIGH, NC 27699-1563	Website: www.ncdot.gov	

R-5963A Chatham Park Investors Betterments Chatham Park Way TIP No.

Route

US 501 South of Pittsboro to US 64 Business From 2-Lane Divided Shoulder and 4-Lane Divided C&G Typical Section

County: CHATHAM CONSTR. COST

Final

2/17/2025 Prepared By: Kimley-Horn Date Division 8 Curtis Tillman, PE Requested By: 2/11/2025 Date Priced By: Date

Priced	Бу.		Curus Tillman, PE	Date				
Line Item	Item No.	Sec No.	Description	Quantity	Unit	Price	An	nount
			avany v a					
	5040500000 F	1505	SIGNALS	2.2	E.4		Φ.	
	7048500000-E		PEDESTRIAN SIGNAL HEAD (16", 1 SECTION WITH COUNTDOWN)	3.2	EA		\$	
	7060000000-E		SIGNAL CABLE	1,385	LF		\$	-
	7120000000-E		VEHICLE SIGNAL HEAD (12", 3 SECTION)	4.4	EA		\$	
	7132000000-E		VEHICLE SIGNAL HEAD (12", 4 SECTION)	0.8	EA		\$	-
	7144000000-E		VEHICLE SIGNAL HEAD (12", 5 SECTION)	0.4	EA		\$	
	7288000000-E		PAVED TRENCHING (2 conduits, 2 inch)	59	LF		\$	-
	7300000000-E		UNPAVED TRENCHING (2 conduits, 2 inch)	198	LF		\$	-
	7301000000-E		DIRECTIONAL DRILL (2 conduits, 2 inch)	185	LF		\$	-
	7324000000-N		JUNCTION BOX (STANDARD SIZE)	3.0	EA		\$	-
	7348000000-N		JUNCTION BOX (OVER-SIZED, HEAVY DUTY)	1.6	EA		\$	-
	7444000000-E		INDUCTIVE LOOP SAWCUT	562	LF		\$	
	7456000000-E		LEAD-IN CABLE (14-2)	1,474	LF		\$	-
	7588000000-N		METAL POLE WITH SINGLE MAST ARM	1.6	EA		\$	-
	7613000000-N	SP	SOIL TEST	1.6	EA		\$	-
	7614100000-E		DRILLED PIER FOUNDATION*	8.8	CY		\$	
	7631000000-N		MAST ARM WITH METAL POLE DESIGN	1.6	EA		\$	-
	7636000000-N		SIGN FOR SIGNALS	4.2	EA		\$	-
	7642200000-N		TYPE II PEDESTAL WITH FOUNDATION	2.2	EA		\$	-
	7684000000-N		SIGNAL CABINET FOUNDATION	0.4	EA		\$	-
	7696000000-N		CONTROLLER WITH CABINET (TYPE ******2070LX, BASE MOUNTED)	0.4	EA		\$	-
	7744000000-N		DETECTOR CARD (TYPE 170)	4.2	EA		\$	-
	7901000000-N		CABINET BASE EXTENDER	0.4	EA		\$	-
	7980000000-N	SP	POWDER COAT FOR SINGLE MAST ARM WITH METAL POLE	1.6	EA		\$	-
	7980000000-N	SP	POWDER COAT FOR PEDESTAL	2.4	EA		\$	-
			UTILITY CONSTRUCTION					
	0318000000-E	300	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	1,053.00	TON		\$	-
	0321000000-E	300	FOUNDATION CONDITIONING GEOTEXTILE	216.00	SY		\$	-
	1693000000-E	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	83.00	TON		\$	-
	5326200000-E	1510	12" WATER LINE	9,421	LF		\$	-
	5326600000-E	1510	16" WATER LINE	588	LF		\$	-
	5329000000-E	1510	DUCTILE IRON WATER PIPE FITTINGS	11,900.00	LB		\$	-
	5540000000-E	1515	6" VALVE	14	EA		\$	-
	5558000000-E	1515	12" VALVE	12.00	EA		\$	-
	5589200000-E	1515	2" AIR RELEASE VALVE	3.00	EA		\$	-
	5666000000-N	1515	FIRE HYDRANT	15.00	EA		\$	-
	5673000000-E	1515	FIRE HYDRANT LEG	231.00	LF		\$	-
	5835900000-E	1540	20" ENCASEMENT PIPE	1,280.0	LF		\$	-
	5836200000-E	1540	30" ENCASEMENT PIPE	165	LF		\$	-
	5872500000-E	1550	BORE AND JACK OF 20"	108.00	LF		\$	-
	5872600000-E	1550	DIRECTIONAL DRILLING OF 16"	588	LF		\$	-
	5888000000-E	1520	GENERIC UTILITY ITEM - 2" PVC CASING	1,744	LF		\$	-
	5888000000-E	1520	GENERIC UTILITY ITEM - 4" PVC CASING	6,193	LF		\$	-
	5888000000-E	1520	GENERIC UTILITY ITEM - 6" PVC CASING	3,744	LF		\$	-
			RETAINING WALL #1					
	8847000000-E	SP	FORM LINER ARCHITECTURAL FINISH	1,720	SF		\$	-
			RETAINING WALL #2					
	8847000000-E	SP	FORM LINER ARCHITECTURAL FINISH	1,720	SF		\$	-
				,				
			RETAINING WALL #3	1				
	8847000000-E	SP	FORM LINER ARCHITECTURAL FINISH	2,935	SF		\$	
	22.77000000 E	<u> </u>	The state of the s	2,733			T	
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Lgth 3.2 Contract Cost

<u>E. & C. 16%</u> Construction Cost

TIP No. R-5963A Tri-River Betterments

Route

Chatham Park Way

US 501 South of Pittsboro to US 64 Business From Typical Section 2-Lane Divided Shoulder and 4-Lane Divided C&G Final County: CHATHAM

> CONSTR. COST **\$0**

Prepared By: Kimley-Horn 2/17/2025 Date Requested By: Division 8 Date 2/11/2025 Curtis Tillman, PE Priced By: Date

Titeca	Bj.		Curus Tillinan, TE	Dute			
Line	T. N	Sec	D 1.0	0 "	T T *4	ъ.	
Item	Item No.	No.	Description	Quantity	Unit	Price	Amount
			TUTH TOW CONCERN LOWER				
	0210000000 E	200	UTILITY CONSTRUCTION	21.25	TON		Φ.
	0318000000-E		FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	31.25	TON		\$ -
	0321000000-E	_	FOUNDATION CONDITIONING GEOTEXTILE	6.25	SY		\$ -
	1693000000-E		ASPHALT PLANT MIX, PAVEMENT REPAIR	20.75			\$ -
	5325600000-E		6" WATER LINE	8	LF		\$ -
	5325800000-E	1510	8" WATER LINE	100	LF		\$ -
	5326200000-E	1510	12" WATER LINE	22.75	LF		\$ -
	5329000000-E	1510	DUCTILE IRON WATER PIPE FITTINGS	725	LB		\$ -
	5540000000-E	1515	6" VALVE	0.25	EA		\$ -
	5558000000-E	1515	12" VALVE	0.25	EA		\$ -
	5571600000-E	1515	6" TAPPING SLEEVE & VALVE	0.25	EA		\$ -
	5589200000-E	1515	2" AIR RELEASE VALVE	0.25	EA		\$ -
	5648000000-N	1515	RELOCATE WATER METER	0.25	EA		\$ -
	5666000000-N	1515	FIRE HYDRANT	0.25	EA		\$ -
	5673000000-E	1515	FIRE HYDRANT LEG	1.5	LF		\$ -
	5686500000-E	1515	WATER SERVICE LINE	23	LF		\$ -
	5709000000-E	1520	3" FORCE MAIN SEWER	147.5	LF		\$ -
	5769000000-E	1520	DUCTILE IRON SEWER PIPE FITTINGS	200	LB		\$ -
	5798000000-E	1530	ABANDON 3" UTILITY PIPE	153.25	LF		\$ -
	5801000000-E	1530	ABANDON 8" UTILITY PIPE	62	LF		\$ -
	5804000000-E	1530	ABANDON 12" UTILITY PIPE	29.5	LF		\$ -
	5835000000-E	1540	48" ENCASEMENT PIPE	133	LF		\$ -
	5835600000-E	1540	12" ENCASEMENT PIPE	31.75	LF		\$ -
	5835700000-E		16" ENCASEMENT PIPE	26.25	LF		\$ -
		- 10					

Lgth 3.2 Contract Cost <u>E. & C. 16%</u>

Construction Cost

TIP No. R-5963A County: CHATHAM

Route Chatham Park Way

From US 501 South of Pittsboro to US 64 Business
Typical Section 2-Lane Divided Shoulder and 4-Lane Divided C&G

CONSTR. COST
\$0

Prepared By:Kimley-HornDate2/17/2025Requested By:Division 8Date2/11/2025Priced By:Curtis Tillman, PEDate

Priced	Ву:		Curtis Tillman, PE	Date				
Line Item	Item No.	Sec No.	Description	Quantity	Unit	Price		Amount
	0000100000-N	800	MOBILIZATION	1	LS		\$	-
	0000400000-N	801	CONSTRUCTION SURVEYING	1	LS		\$	-
	0001000000-Е	200	CLEARING AND GRUBBING (47 ACRES)	1	LS		\$	-
	0015000000-N	205	SEALING ABANDONED WELLS	2	EA		\$	-
	0022000000-Е	225	UNCLASSIFIED EXCAVATION	457,000	CY		\$	-
	0036000000-Е	225	UNDERCUT EXCAVATION	12,375	CY		\$	-
	0050000000-Е	200	SUPPLEMENTAL CLEARING AND GRUBBING	3	ACR		\$	-
	0127000000-N	235	EMBANKMENT SETTLEMENT GAUGES	5	EA		\$	-
	0134000000-Е	240	DRAINAGE DITCH EXCAVATION	1,530	CY		\$	-
	0141000000-E	240	BERM DITCH CONSTRUCTION	2,700	LF		\$	-
	0156000000-E	250	REMOVAL OF EXISTING ASPHALT PAVEMENT	350	SY		\$	-
	0192000000-N	260	PROOF ROLLING	30	HR		\$	-
	0194000000-E	265	SELECT GRANULAR MATERIAL - CLASS III	2,000	CY		\$	-
	0195000000-E	265	SELECT GRANULAR MATERIAL	6,275	CY		\$	-
	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION - ROADWAY	7,425	SY		\$	-
	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION - EC	4,600	SY		\$	-
	0222000000-Е	SP	GEOTEXTILE FOR ROCK EMBANKMENTS	3,180	SY		\$	-
	0314000000-Е	SP	SELECT MATERIAL, CLASS VII FOR ROCK EMBANKMENTS	16,640	TON		\$	-
	0314000000-Е	SP	SELECT MATERIAL, CLASS VI FOR ROCK EMBANKMENTS	1,730	TON		\$	-
			,	,				
	0318000000-E	300	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES - RDWY	2,800	TON		\$	_
	0318000000-E		FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES - UTIL		TON		\$	_
	0321000000-E		FOUNDATION CONDITIONING GEOTEXTILE - RDWY	8,700	SY		\$	_
	0321000000-E		FOUNDATION CONDITIONING GEOTEXTILE - UTIL	20	SY		\$	_
	0335200000-Е		15" DRAINAGE PIPE	116	LF		\$	_
	0335300000-E		18" DRAINAGE PIPE	104	LF		\$	_
	0335400000-E		24" DRAINAGE PIPE	112	LF		\$	_
	0335500000-E		30" DRAINAGE PIPE	48	LF		\$	_
	0335850000-Е	305	15" DRAINAGE PIPE ELBOWS	6	EA		\$	-
	0335850000-Е	305	18" DRAINAGE PIPE ELBOWS	4	EA		\$	-
	0335850000-E		24" DRAINAGE PIPE ELBOWS	4	EA		\$	-
	0335850000-Е		30" DRAINAGE PIPE ELBOWS	2	EA		\$	_
	0343000000-Е		15" SIDE DRAIN PIPE	140	LF		\$	_
	0448000000-E		48" RC PIPE CULVERT, CLASS IV	428	LF		\$	_
	0448200000-E		15" RC PIPE CULVERT, CLASS IV	8,184	LF		\$	_
	0448300000-E		18" RC PIPE CULVERT, CLASS IV	11,372	LF		\$	-
	0448400000-E		24" RC PIPE CULVERT, CLASS IV	3,744	LF		\$	_
	0448500000-E		30" RC PIPE CULVERT, CLASS IV	1,436	LF		\$	-
	0448600000-E		36" RC PIPE CULVERT, CLASS IV	264	LF		\$	_
			42" RC PIPE CULVERT, CLASS V	112			\$	_
	0995000000-E		PIPE REMOVAL	565			\$	_
	0332000000 <u>D</u>	2.0					Ψ	
	1011000000-N	500	FINE GRADING (174,000 SY)	1	LS		\$	-
	1044000000-E		LIME TREATED SOIL (SLURRY METHOD)	56,500			\$	_
	1066000000-E	501	LIME FOR LIME TREATED SOIL		TON		\$	_
	1077000000-E		#57 STONE		TON		\$	
	1099500000-E		SHALLOW UNDERCUT	1,500			\$	
	1099700000-E		CLASS IV SUBGRADE STABILIZATION	7,810			\$	
	1110000000-E		STABILIZER AGGREGATE		TON		\$	
	1112000000-E		GEOTEXTILE FOR SUBGRADE STABILIZATION	15,130			\$	
	1112000000 L	202	OLO 12.11.III I ON DODOM ID DITIDIDIZITION	13,130	51		Ψ	

, , , , , , , , , , , , , , , , , , , ,						
1121000000-E		AGGREGATE BASE COURSE	13,600		\$	-
1176000000-E		SOIL CEMENT BASE	56,500		\$	-
1187000000-E	542	PORTLAND CEMENT FOR SOIL CEMENT BASE	1,600	TON	\$	-
1220000000-E	545	INCIDENTAL STONE BASE	100	TON	\$	-
1275000000-E	600	PRIME COAT	56	GAL	\$	-
1297000000-E	607	MILLING ASPHALT PAVEMENT, 1.5" DEPTH	1,150	SY	\$	
1297000000-E	607	MILLING ASPHALT PAVEMENT, 2.5" DEPTH	6,150	SY	\$	-
1330000000-E	607	INCIDENTAL MILLING	950	SY	\$	-
1491000000-E		ASPHALT CONC BASE COURSE, TYPE B25.0C	22,000	TON	\$	-
1503000000-E		ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	27,000		\$	-
1519000000-E		ASPHALT CONC SURFACE COURSE, TYPE S9.5B	20	TON	\$	_
1523000000-E		ASPHALT CONC SURFACE COURSE, TYPE S9.5C	24,000		\$	_
1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	3,705		\$	-
1693000000-E		ASPHALT PLANT MIX, PAVEMENT REPAIR	- 7:	TON	\$	_
1891000000-E	SP	GENERIC PAVING ITEM - 12" JOINTED CONCRETE TRUCK APRON	270	SY	\$	
1891000000-E	51	DENERIC LAVING HEWI - 12 JOINTED CONCRETE TROCK ALKON	270	51	Ψ	-
200000000 N	906	DICHT OF WAY MADVEDS	1	T: A	¢	
2000000000-N		RIGHT-OF-WAY MARKERS	100	EA	\$	-
2020000000-N		CONTROL-OF-ACCESS MARKERS	199	EA	\$	-
2022000000-E		SUBDRAIN EXCAVATION	4,170	CY	\$	-
2026000000-E		GEOTEXTILE FOR SUBSURFACE DRAINS	12,400	SY	\$	-
2036000000-Е		SUBDRAIN COARSE AGGREGATE	2,090	CY	\$	-
2044000000-E		6" PERFORATED SUBDRAIN PIPE	12,400	LF	\$	-
2070000000-Е		SUBDRAIN PIPE OUTLET	25	EA	\$	-
2077000000-E		6" OUTLET PIPE	150	LF	\$	-
2099000000-Е		SHOULDER DRAIN	320	LF	\$	-
2110000000-E	816	4" SHOULDER DRAIN PIPE	300	LF	\$	-
2121000000-E	816	4" OUTLET PIPE FOR SHOULDER DRAINS	80	LF	\$	-
2132000000-N	816	CONCRETE PAD FOR SHOULDER DRAIN PIPE OUTLET	4	EA	\$	-
2143000000-E	818	BLOTTING SAND	20	TON	\$	-
2209000000-E	838	ENDWALLS	22.5	CY	\$	-
2253000000-E	840	PIPE COLLARS	0.6	CY	\$	-
2286000000-N	840	MASONRY DRAINAGE STRUCTURES	275	EA	\$	-
2308000000-E		MASONRY DRAINAGE STRUCTURES	157	LF	\$	-
2364000000-N	840	FRAME WITH TWO GRATES, STD. 840.16	4	EA	\$	-
2366000000-N		FRAME WITH TWO GRATES, STD 840.24	76	EA	\$	-
2367000000-N		FRAME WITH TWO GRATES, STD 840.29	1	EA	\$	-
2374000000-N	840	FRAME WITH GRATE & HOOD, STD. 840.03, TYPE E	15	EA	\$	-
2374000000-N		FRAME WITH GRATE & HOOD, STD. 840.03, TYPE F	91	EA	\$	_
2374000000-N		FRAME WITH GRATE & HOOD, STD. 840.03, TYPE G	53	EA	\$	_
2396000000-N		FRAME WITH COVER, STD. 840.54	5	EA	\$	-
2407000000-N		STEEL FRAME WITH TWO GRATES, STD 840.37	26		\$	
		CONCRETE TRANSITIONAL SECTION FOR CATCH BASIN	59	EA	\$	
2451000000-N	852	CONCRETE TRANSITIONAL SECTION FOR DROP INLET	25	EA	\$	
243100000-IN	032	CONCRETE TRANSITIONAL SECTION FOR DIVOT INLET	23	ĽЛ	Ψ	-
2535000000-E	816	9" X 18" CONCRETE CURB	270	LF	\$	_
2542000000-E		1'-6" CONCRETE CURB AND GUTTER	25,600		\$	-
						-
2549000000-E		2'-6" CONCRETE CURB AND GUTTER	17,800		\$	-
2577000000-E		CONCRETE EXPRESSWAY GUTTER	340	LF	\$	-
2605000000-N		CONCRETE CURB RAMP	120		\$	-
2612000000-E		6" CONCRETE DRIVEWAYS	370		\$	-
2619000000-E		4" CONCRETE PAVED DITCH	40		\$	-
2655000000-E	852	5" MONOLITHIC ISLANDS (KEYED-IN)	3,460	SY	\$	-
3030000000-E		STEEL BEAM GUARDRAIL	2,125		\$	-
3150000000-N		ADDITIONAL GUARDRAIL POSTS	10	EA	\$	-
3210000000-N		GUARDRAIL ANCHOR UNITS, TYPE CAT-1	7	EA	\$	-
3287000000-N		GUARDRAIL END UNITS, TYPE TL-3	11	EA	\$	-
3317000000-N	862	GUARDRAIL ANCHOR UNITS, TYPE B-77	12	EA	\$	-
3575000000-E	SP	GENERIC FENCING ITEM - PEDESTRIAN SAFETY RAIL	1,010	LF	\$	-

3628000000-E		RIP RAP, CLASS I	520		\$	
3642000000-E	876	RIP RAP, CLASS A	2,380	TON	\$	_
3649000000-E	876	RIP RAP, CLASS B	4,440	TON	\$	-
3656000000-E	876	GEOTEXTILE FOR DRAINAGE	7,200	SY	\$	-
4025000000-E	901	CONTRACTOR FURNISHED, TYPE 'A' SIGN	2,970	SF	\$	-
4025000000-E	901	CONTRACTOR FURNISHED, TYPE 'B' SIGN	165	SF	\$	-
4025000000-E		CONTRACTOR FURNISHED, TYPE 'D' SIGN	203	SF	\$	_
4025000000-E		CONTRACTOR FURNISHED, TYPE 'E' SIGN	985	SF	\$	
4025000000-E		CONTRACTOR FURNISHED, TYPE 'F' SIGN	1,114	SF	\$	_
4048000000-E		REINFORCED CONCRETE SIGN FOUNDATIONS	, 9	CY	\$	
4060000000-E		SUPPORTS, BREAKAWAY STEEL BEAM	8,593	LB	\$	_
4072000000-E		SUPPORTS, 3-LB STEEL U-CHANNEL	4,915	LF	\$	
4096000000-N		SIGN ERECTION, TYPE D	13	EA	\$	_
4102000000 N		SIGN ERECTION, TYPE E	125	EA	\$	
4108000000 N		SIGN ERECTION, TYPE F	63	EA	\$	
41100000000 N		SIGN ERECTION, TYPE A (GROUND MOUNTED)	20	EA	\$	
4110000000-N		SIGN ERECTION, TYPE B (GROUND MOUNTED)	6	EA	\$	
4116100000-N 4116100000-N		SIGN ERECTION, 11PE B (GROUND MOUNTED) SIGN ERECTION, RELOCATE TYPE F (GROUND MOUNTED)	33	EA	\$	-
4116100000-N 4152000000-N		DISPOSAL OF SIGN SYSTEM, STEEL BEAM	6	EA EA	\$	
		DISPOSAL OF SIGN SYSTEM, STEEL BEAM DISPOSAL OF SIGN SYSTEM, U-CHANNEL	<u> </u>	EA EA	\$	-
4155000000-N		· · · · · · · · · · · · · · · · · · ·	24		\$	
4236000000-N		DISPOSAL OF SIGN, A or B (GROUND MOUNTED)	12	EA		-
4238000000-N	907	DISPOSAL OF SIGN, D, E OR F	33	EA	\$	-
4400000000	4440	WARNI GOVE STONE (STATE OF A STONE OF A STON		977		
		WORK ZONE SIGNS (STATIONARY)	144	SF	\$	
		WORK ZONE SIGNS (PORTABLE)	768	SF	\$	-
		WORK ZONE SIGNS (BARRICADE MOUNTED)	368	SF	\$	-
4430000000-N			93	EA	\$	
4435000000-E			339	EA	\$	
		BARRICADES (TYPE III)	72	LF	\$	-
4455000000-E				DAY	\$	-
4516000000-N	1180	SKINNY DRUMS	131	EA	\$	
		THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	51,500	LF	\$	-
4695000000-E		THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	8,200	LF	\$	-
		THERMOPLASTIC PAVEMENT MARKING LINES (24", 90 MILS)	560		\$	-
4725000000-E		THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	144	EA	\$	-
		PAINT PAVEMENT MARKING LINES (4")	89,000	LF	\$	-
4820000000-E	1205	PAINT PAVEMENT MARKING LINES (8")	2,500	LF	\$	-
4835000000-E	1205	PAINT PAVEMENT MARKING LINES (24")	430	LF	\$	-
		PAINT PAVEMENT MARKING SYMBOLS	40	EA	\$	-
4846000000-E	1205	POLYUREA PAVEMENT MARKING LINES (4", 30 MILS)	810	LF	\$	-
		GENERIC PAVEMENT MARKING ITEM - YIELD LINE THERMOPLASTIC	70	LE		
4890000000-E	SP	PAVEMENT MARKING, 24", 90 MILS	/0	LF	\$	-
		GENERIC PAVEMENT MARKING ITEM - POLYCARBONATE H-SHAPED	(50	ΕA		
4895000000-N	SP	MARKERS	650	EA	\$	-
4900000000-N	1251	PERMANENT RAISED PAVEMENT MARKERS	5	EA	\$	-
6000000000-E	1605	TEMPORARY SILT FENCE	50,480	LF	\$	
		EROSION CONTROL STONE, CLASS A		TON	\$	
		EROSION CONTROL STONE, CLASS B	7,780		\$	
		SEDIMENT CONTROL STONE		TON	\$	-
		TEMPORARY MULCHING		ACR	\$	
		SEED FOR TEMPORARY SEEDING	2,400		\$	
		FERTILIZER FOR TEMPORARY SEEDING		TON	\$	<u> </u>
_		TEMPORARY SLOPE DRAINS	2,835		\$	-
_		SAFETY FENCE	2,833		\$	
			18,190			
_		SILT EXCAVATION MATTING FOR EDOSION CONTROL	,		\$	
		MATTING FOR EROSION CONTROL	111,150		\$	
		COIR FIBER MAT	9,715		\$	-
6042000000-E	1632	1/4" HARDWARE CLOTH	12,300	LF	\$	-

<u> </u>	•	,				
		LOW PERMEABILITY GEOTEXTILE	4,600			-
		FLOCCULANT	3,585	LB	\$ -	-
		COIR FIBER WATTLE	6,570	LF	\$ -	
6071014000-E	1642	COIR FIBER WATTLE BARRIER	930	LF	\$ -	-
6071030000-E	1640	COIR FIBER BAFFLE	11,310	LF	\$ -	-
6084000000-E	1660	SEEDING AND MULCHING	48	ACR	\$ -	-
6087000000-E	1660	MOWING	48	ACR	\$ -	_
6090000000-E	1661	SEED FOR REPAIR SEEDING	600	LB		-
6093000000-E		FERTILIZER FOR REPAIR SEEDING	2.25	TON	 .	_
		SEED FOR SUPPLEMENTAL SEEDING	1,150		 \$ -	_
6108000000-E		FERTILIZER TOPDRESSING	34.25		 \$ -	_
6114500000-N		SPECIALIZED HAND MOWING		MHR	 _	_
6117000000 N		RESPONSE FOR EROSION CONTROL	125	EA	 Φ.	
6117500000 N		CONCRETE WASHOUT STRUCTURE	2	EA	 \$ -	_
6123000000-E		REFORESTATION	0.1	ACR	 \$ -	-
6132000000-E		GENERIC EROSION CONTROL ITEM - PREFABRICATED CONCRETE WASH		EA		_
0132000000-E	SF	GENERIC EROSION CONTROL HEM - PREFADRICATED CONCRETE WASH	12	EA	Ф -	_
7040500000 F	1705	DEDECEDIAN CIONAL HEAD (1611 1 GEOTION WITH COLD TEDOWN)	12.0	- F.	Φ.	
7048500000-E		PEDESTRIAN SIGNAL HEAD (16", 1 SECTION WITH COUNTDOWN)	12.8			_
7060000000-E		SIGNAL CABLE	5,540		 \$ -	_
7120000000-E		VEHICLE SIGNAL HEAD (12", 3 SECTION)	17.6		 \$ -	_
7132000000-E		VEHICLE SIGNAL HEAD (12", 4 SECTION)	3.2	EA	 т	_
7144000000-E		VEHICLE SIGNAL HEAD (12", 5 SECTION)	1.6	EA		
7288000000-E		PAVED TRENCHING (2 conduits, 2 inch)	236	LF	\$ -	-
7300000000-E	1715	UNPAVED TRENCHING (2 conduits, 2 inch)	792	LF	т	-
7301000000-E	1715	DIRECTIONAL DRILL (2 conduits, 2 inch)	740	LF	\$ -	-
7324000000-N	1716	JUNCTION BOX (STANDARD SIZE)	12.0	EA	\$ -	-
7348000000-N	1716	JUNCTION BOX (OVER-SIZED, HEAVY DUTY)	6.4	EA	\$ -	_
7444000000-E	1725	INDUCTIVE LOOP SAWCUT	2,248	LF	\$ -	-
7456100000-E		LEAD-IN CABLE (14-2)	5,896	LF		
7588000000-N	SP	METAL POLE WITH SINGLE MAST ARM	6.4	EA	 .	_
7613000000-N	SP	SOIL TEST	6.4	EA	 \$ -	_
7614100000-E	SP	DRILLED PIER FOUNDATION*	35.2	CY	 \$ -	_
7631000000 E		MAST ARM WITH METAL POLE DESIGN	6.4	EA	 _	_
7636000000 N		SIGN FOR SIGNALS	16.8	EA	 .	_
7642200000-N		TYPE II PEDESTAL WITH FOUNDATION	8.8	EA	 \$ -	<u> </u>
768400000-N		SIGNAL CABINET FOUNDATION		EA	 Φ.	<u>. </u>
			1.6		 	-
7696000000-N		CONTROLLER WITH CABINET (TYPE ******2070LX, BASE MOUNTED)	1.6	EA	 \$ -	_
7744000000-N		DETECTOR CARD (TYPE 170)	16.8	EA		_
7901000000-N		CABINET BASE EXTENDER	1.6	EA	 Ψ	-
7980000000-N	SP	POWDER COAT FOR SINGLE MAST ARM WITH METAL POLE	6.4	EA	 \$ -	
7980000000-N	SP	POWDER COAT FOR PEDESTAL	9.6	EA	\$ -	
		BRIDGE 180540 @ -L- STA. 76+49.00				
8096000000-E	450	PILE EXCAVATION IN SOIL	258	LF	 Ψ	_
8097000000-E	450	PILE EXCAVATION NOT IN SOIL	128	LF	 \$ -	-
8105540000-E		3'-6" DIA DRILLED PIERS IN SOIL	26	LF	\$ -	-
8105640000-E	411	3'-6" DIA DRILLED PIERS NOT IN SOIL	141	LF	\$ -	-
8111400000-E	411	PERMANENT STEEL CASING FOR 3'-6" DIA DRILLED PIER	34	LF	\$ -	
8115000000-N	411	CSL TESTING	2	EA	\$ -	-
8147000000-E		REINFORCED CONCRETE DECK SLAB	9,616	SF	 	_
8161000000-E		GROOVING BRIDGE FLOORS	9,819	SF	 Φ.	_
8182000000-E		CLASS A CONCRETE (BRIDGE)	163	CY	 	_
8210000000-N		BRIDGE APPROACH SLABS, STATION 76+49.00 -L-	1	LS		_
8217000000-IV		REINFORCING STEEL (BRIDGE)	32,183	LB		_
8238000000-E		SPIRAL COLUMN REINFORCING STEEL (BRIDGE)	4,895	LB	.	_
8262000000-E 8262000000-E		45" PRESTRESSED CONCRETE GIRDERS		LF	 .	
			1,111		 	_
8328200000-E		PILE DRIVING EQUIPMENT SETUP FOR HP 14 X 73 STEEL PILES	<u>26</u>	EA	 т	_
8384000000-E		HP 14 X 73 STEEL PILES	520	LF	Ψ	_
8391000000-N		STEEL PILE POINTS	26	EA		_
8394000000-N		DYNAMIC PILE TESTING	1	EA	T	-
8475000000-E	460	TWO BAR METAL RAIL	265	LF	\$ -	-

		_					
8503000000-E	460	CONCRETE BARRIER RAIL	280	LF		\$	-
8517000000-E	460	1'-2" X 2'-6" CONCRETE PARAPET	280	LF		\$	-
8608000000-E	876	RIP RAP CLASS II (2'-0" THICK)	580	TON		\$	-
8622000000-E	876	GEOTEXTILE FOR DRAINAGE	645	SY		\$	-
8657000000-N	430	ELASTOMERIC BEARINGS	1	LS		\$	-
		BRIDGE 180541 @ -L- STA. 135+00.00 (LEFT)					
8096000000-E	450	PILE EXCAVATION IN SOIL	34	LF		\$	-
8097000000-E	450	PILE EXCAVATION NOT IN SOIL	19	LF		\$	-
8147000000-E	420	REINFORCED CONCRETE DECK SLAB	5,434	SF		\$	-
8161000000-E	420	GROOVING BRIDGE FLOORS	5,538	SF		\$	-
8182000000-E	420	CLASS A CONCRETE (BRIDGE)	81	CY		\$	-
8210000000-N	422	BRIDGE APPROACH SLABS, STATION 135+00.00 -L-	1	LS		\$	-
8217000000-E	425	REINFORCING STEEL (BRIDGE)	11,228	LB		\$	-
8278000000-E	430	FIB 54" PRESTRESSED CONCRETE GIRDERS	590	LF		\$	-
8328200000-E	450	PILE DRIVING EQUIPMENT SETUP FOR HP 14 X 73 STEEL PILES	22	EA		\$	_
8384000000-E	450	HP 14 X 73 STEEL PILES	445	LF		\$	-
8391000000-N		STEEL PILE POINTS	22	EA		\$	-
8475000000-E		TWO BAR METAL RAIL	112	LF		\$	-
8503000000-E		CONCRETE BARRIER RAIL	239	LF		\$	_
8517000000-E	460	1'-2" X 2'-6" CONCRETE PARAPET	120	LF		\$	_
8608000000-E		RIP RAP CLASS II (2'-0" THICK)	360	TON		\$	_
8622000000-E		GEOTEXTILE FOR DRAINAGE	401	SY		\$	_
8657000000-N		ELASTOMERIC BEARINGS	1	LS		\$	
3037000000-11	730	LEASTOMERIC BEARINGS	1	LO		Ψ	
		BRIDGE 180542 @ -L- STA. 135+00.00 (RIGHT)					
8147000000-E	420	REINFORCED CONCRETE DECK SLAB	5,434	SF		\$	_
8161000000-E		GROOVING BRIDGE FLOORS	5,538	SF		\$	
8182000000-E		CLASS A CONCRETE (BRIDGE)	82	CY		\$	
821000000-N		BRIDGE APPROACH SLABS, STATION 135+00.00 -L-	02	LS		\$	
8217000000-N 8217000000-E		REINFORCING STEEL (BRIDGE)	11,534	LB		\$	
		, ,					-
8278000000-E		FIB 54" PRESTRESSED CONCRETE GIRDERS	590	LF		\$	-
8328200000-E		PILE DRIVING EQUIPMENT SETUP FOR HP 14 X 73 STEEL PILES	22	EA		\$	-
8384000000-E		HP 14 X 73 STEEL PILES	420	LF		\$	-
8391000000-N		STEEL PILE POINTS	22	EA		\$	-
8475000000-E		TWO BAR METAL RAIL	112	LF		\$	-
8503000000-E		CONCRETE BARRIER RAIL	239	LF		\$	-
8517000000-E		1'-2" X 2'-6" CONCRETE PARAPET	120	LF		\$	-
8608000000-E		RIP RAP CLASS II (2'-0" THICK)	300			\$	-
8622000000-E		GEOTEXTILE FOR DRAINAGE	334	SY		\$	-
8657000000-N	430	ELASTOMERIC BEARINGS	1	LS		\$	-
		RETAINING WALL #1					
8802010000-E	SP	SOIL NAIL RETAINING WALLS	1,720	SF		\$	-
8802015100-N	SP	SOIL NAIL VERIFICATION TESTS	2	EA		\$	
8802015110-N	SP	SOIL NAIL PROOF TESTS	4	EA		\$	-
		RETAINING WALL #2					
8802010000-E	SP	SOIL NAIL RETAINING WALLS	1,720	SF		\$	-
8802015100-N	SP	SOIL NAIL VERIFICATION TESTS	2	EA		\$	-
8802015110-N	SP	SOIL NAIL PROOF TESTS	4	EA		\$	-
		RETAINING WALL #3					
		GENERIC RETAINING WALL ITEM - NON-STANDARD CIP GRAVITY					
8847000000-E	SP	RETAINING WALL	2,935	SF		\$	_
		UTILITY CONSTRUCTION					
1693000000-E	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	62.25	TON		\$	_
		6" WATER LINE	24	LF		\$	
		8" WATER LINE	300	LF		\$	-
		12" WATER LINE	+	LF		\$	
5320200000-E	1310	12 WATER LINE	68.25	Lľ	1	ψ	-

5329000000-E	1510	DUCTILE IRON WATER PIPE FITTINGS	2,175	LB	\$	-
5540000000-E	1515	6" VALVE	0.75	EA	\$	-
5558000000-E	1515	12" VALVE	0.75	EA	\$	-
5571600000-E	1515	6" TAPPING SLEEVE & VALVE	0.75	EA	\$	-
5589200000-E	1515	2" AIR RELEASE VALVE	0.75	EA	\$	-
5648000000-N	1515	RELOCATE WATER METER	0.75	EA	\$	-
5666000000-N	1515	FIRE HYDRANT	0.75	EA	\$	-
5673000000-E	1515	FIRE HYDRANT LEG	4.5	LF	\$	-
5686500000-E	1515	WATER SERVICE LINE	69	LF	\$	-
5709000000-E	1520	3" FORCE MAIN SEWER	442.5	LF	\$	-
5769000000-E	1520	DUCTILE IRON SEWER PIPE FITTINGS	600	LB	\$	-
5798000000-E	1530	ABANDON 3" UTILITY PIPE	459.75	LF	\$	-
5801000000-E	1530	ABANDON 8" UTILITY PIPE	186	LF	\$	-
5804000000-E	1530	ABANDON 12" UTILITY PIPE	88.5	LF	\$	-
5835600000-E	1540	12" ENCASEMENT PIPE	95.25	LF	\$	-
5835700000-E	1540	16" ENCASEMENT PIPE	78.75	LF	\$	-

EARTHWORK BALANCE SHEET

Volumes in Cubic Yards

PROJECT: R-5963A COUNTY: CHATHAM DATE 3/19/2025 SHEET_1_OF_1_SHEETS

LINE	STATION	STATION	TOTAL EXCAV. (UNCL.)	ROCK EXCAV.	UNDERCUT EXCAV.	UNSUIT. EXCAV.	SUITABLE EXCAV.	TOTAL EMB.	ROCK EMB.	EARTH EMB.	EMBANK.	BORROW	SUITABLE WASTE	UNSUIT. WASTE	TOTAL WASTE
L	10+19.74	43+50.	155,547	2,394	1,075	44,471	108,682	13,822	2,394	10,830	15,389	0	95,687	45,546	141,233
L	43+50.	75+78.	76,369	21	775	15,454	60,894	49,288	21	49,262	59,135	0	1,780	16,229	18,009
L	77+20.	78+91.82	0	0	0	0	0	4,141	0	4,141	4,969	4,969	0	0	0
L	80+41.91	111+00.	127,624	1,701	1,225	559	125,364	24,901	1,701	22,775	29,031	0	98,034	1,784	99,818
L	111+00.	134+04.29	41,928	0	2,150	1,916	40,012	39,637	0	39,637	47,564	7,552	0	4,066	4,066
L	135+25.71	165+00.	51,958	295	0	0	51,663	62,721	295	62,352	75,118	23,160	0	0	0
L	165+00.	177+15.3	1,215	0	0	0	1,215	19,329	0	19,329	23,195	21,980	0	0	0
L	177+86.8	179+25.	133	0	0	0	133	14	0	14	17	0	116	0	116
				0	0	0	0		0	0	0	0	0	0	0
Y1	12+39.	29+63.	2,799	0	0	0	2,799	955	0	955	1,146	0	1,653	0	1,653
	10.05	15 51 20	200	0	0	0	0	2.17	0	0	0	0	0	0	0
Y7	13+25. 17+21.76	15+71.69	280	0	0	0	280	247	0	247	296	16	0	0	0
Y7	1/+21./6	20+30.	520	0	0	0	520	84	0	84	101	0	419	0	419
Y10	9+83.81	11+61.	102	0	0	0	102	5,524	0	5,524	6,629	6,527	0	0	0
Y10	12+39.	14+17.58	10.802	0	0	0	10.802	0	0	0	0,029	0,327	10,802	0	10.802
110	12+39.	14+17.36	10,802	0	0	0	0	U	0	0	0	0	0	0	0
Y14	11+48.	31+05.	1.561	0	0	0	1.561	2,383	0	2.383	2.860	1.299	0	0	0
114	11+48.	31+03.	1,301	0	0	0	0	2,363	0	0	0	0	0	0	0
Y16	10+00.	13+21.	34	0	225	0	34	223	0	223	268	234	0	225	225
110	10100.	13121.	34	0	0	0	0	223	0	0	0	0	0	0	0
RBT	10+00.	13+45.57	2,365	0	825	0	2,365	667	0	667	800	0	1,565	825	2,390
					0_0		2,000					1	1,000		-,070
PROJECT SUBTOTAL	·		473,237	4,411	6,275	62,400	406,426	223,936	4,411	218,422	266,518	65,737	210,056	68,675	278,731
LOSS DUE TO CLEARING	& GRUBBING		-17,000				-17,000	0				0	-17,000	0	-17,000
ADDITIONAL UNDERCU	TO BE FILLED WITH BORROW				4,100			4,100	0	4,100	4,920	4,920		4,100	4,100
EARTH WASTE TO REPLA	ACE BORROW											-70,657	-70,657	0	-70,657
PROJECT TOTALS			456,237	4,411	10,375	62,400	389,426	228,036	4,411	222,522	271,438	0	122,399	72,775	195,174
ADDITIONAL UNDERCU	TO BE FILLED WITH SELECT GR	ANULAR MATERIAL - CLASS III			2,000			,						2,000	2,000
												1			
GRAND TOTALS			456,237		12,375							0	122,399	74,775	197,174
G. 177			4== 000	1								-			
SAY			457,000									0			
	ANULAR MATERIAL - CLASS III		8,275	CY								1			
	DITCH EXCAVATION (DDE)		1,530	CY								1			
ESTIMATED SHOULDER			4,900	CY											
ESTIMATED SHALLOW U			1,500	CY								1			
ESTIMATED CLASS IV SU	JBGRADE STABILIZATION		7,810	TON								11	<u> </u>		

NOTE: A QUANTITY OF 52,400 CY OF UNCLASSIFIED EXCAVATION - ACCEPTABLE BUT NOT TO BE USED IN THE TOP 3' OF EMBANKMENT OR BACKFILL HAS BEEN MEASURED FROM THE CROSS-SECTIONS

2,190 CY FROM -L- STA 12+25 TO 12+75 (LT & RT)

150 CY FROM -L- STA 23+75 TO 26+25 (LT & RT)

5,310 CY FROM -L- STA 71+75 TO 74+75 (LT & RT)

36,840 CY FROM -L- STA 82+25 TO 89+25 (LT & RT)

580 CY FROM -L- STA 103+25 TO 105+25 (LT & RT) 2,820 CY FROM -L- STA 116+75 TO 119+75 (LT & RT)

2,570 CY FROM -L- STA 152+75 TO 154+25 (LT & RT) 1,940 CY FROM -RBT- STA 10+50 TO 12+10 (LT & RT)

R-5963A_Balance_Card.xlsm : Balance Sheet 3/19/2025 1:58 PM



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

JOSH STEIN J.R. "JOEY" HOPKINS GOVERNOR SECRETARY

March 7, 2025

MEMORANDUM TO: Reuben Blakley, PE

Division Engineer

ATTENTION: Jeffrey Stroder, PE -DS

Division Project Engineer

SU FROM: Matthew J. Alexander, PE

State Geotechnical Engineer

STATE PROJECT: 48599.1.1 (R-5963A)

CHATHAM COUNTY:

DESCRIPTION: Chatham Park Way from US 15-501 to US 64 Business

SUBJECT: Geotechnical Report – Design and Construction

Recommendations ADDENDUM

The Geotechnical Engineering Unit makes the following recommendation addendum.

I. Borrow Specifications

A. Rock Swell Factor

Recommend a rock swell factor of 25% for calculation of earthwork quantities.

Respectfully Submitted,

03/07/2025 Davie 129.15 Teague, PE Project Geotechnical Engineer

03/07/2025 Christina Bruinsma, PG C6DB1CBA0D0F44A Project Geological Engineer

DocuSigned by:

Document Not Considered Final Unless All Signatures Are Completed

Website: www.ncdot.gov

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION GEOTECHNICAL ENGINEERING UNIT

Summary of Quantities

WBS Number: 48599.1.1 County: CHATHAM Project Engineer: DAVID TEAGUE, PE

TIP Number: R-5963A Field Office / PEF: GEU CONTRACTS Project Geologist: CHRISTINA BRUINSMA, LG

Description: CHATHAM PARK WAY FROM US 15-501 TO US 64 BUSINESS

v l v l		Spec Book Section No. or Special Provision (SP) Reference	Report Section	Alignment	Begin Station	End Station	Quantity	Units / %			
	These Items Only Impact Earthwork Totals										
N/A	Rock Swell Factor	235 - Embankments	I. A	N/A	N/A	N/A	25	%			

CALCULATION OF QUANTITIES

PROJECT TIP	NUMBER:	R-5963A				
CONSTRUCTI	ON WBS NUMBER:	48599.3.	2			
COUNTY:	CHATHAM					
FEDERAL AID	NUMBER: N/A					
TOTAL LENG	TH [USE EXACT THR	FF (3) FIGURES	S REVOND DECIM/	. T 1		
	9+91.310	. ,	177+51.050	-	16759.740	LIN. FT.
STA.	7171.310		177131.030	-	10/25.710	LIN. FT.
						LIN. FT.
						LIN. FT.
						LIN. FT.
·						LIN. FT.
						LIN. FT.
STA.				=		LIN. FT.
TOTAL LENG	TH * = 16	5,759.740	LIN. FT. / 5,280 =		3.174	MILES
STRUCTURE I						
	75+78.000		77+20.000	-	142.000	
	134+00.100		135+21.520		121.420	LIN. FT
STA.						LIN. FT.
STA						LIN. FT.
	TRUCTURES * =		LIN. FT. / 5,2			
LENGIH OF S	OTRUCTURES · =	203.420	LIN. F 1. / 3,2	.ou =	0.030	NILLES
ROADW	AY LENGTH (LESS S	ΓRUCTURES) =	=	3.1	24	MILES
]	NOTE: USED	LANE FOR I	ENGTH			
* LENGTH SH	OWN TO THREE (3) D	DECIMAL PLAC	EES USING NORMA	L ROU	NDING.	
	Computed by: Tyler Sp	oring	Check	ed by:	Vance Blanton	
	(Please	Print Name)			(Please Print Nam	e)

PROJECT NO.:R-5963A

SHEET OF

SECTION:

800

MOBILIZATION

TOTAL:	1 LS

COMPUTED BY:TGS 2/18/25

PROJECT NO.:R-5963A

SHEET OF

SECTION:

801

CONSTRUCTION SURVEYING

TOTAL:	1 LS

COMPUTED BY:TGS 2/18/25

COMPUTED BY: TGS 3/4/2025

CHECKED BY: EARTHWORK

Shoulder Material

Alignment	Station	Station	Area (sf)	Volume (C
L	10+50.00	11+00.00	5.49	10.17
L	11+00.00	13+50.00	6.31	58.43
L	13+50.00	20+00.00	7.36	177.19
L	20+00.00	42+00.00	6.36	518.22
L	42+00.00	44+50.00	2.93	27.13
L	44+50.00	49+50.00	6.36	117.78
L	49+50.00	53+00.00	5.16	66.89
L	53+00.00	54+00.00	6.36	23.56
L	54+00.00	57+00.00	2.93	32.56
L	57+00.00	61+50.00	6.36	106.00
L	61+50.00	64+50.00	2.93	32.56
L	64+50.00	72+50.00	6.36	188.44
L	72+50.00	75+78.00	7.35	89.29
L	77+20.00	78+91.82	7.35	46.77
+				
L	80+41.91	114+00.00	6.36	791.02
L	114+00.00	116+50.00	7.36	68.15
L	116+50.00	119+50.00	4.06	45.11
L	119+50.00	126+00.00	5.16	124.22
L	126+00.00	134+04.29	7.35	218.95
L	135+25.71	148+50.00	7.35	360.50
L	148+50.00	151+50.00	5.16	57.33
L	151+50.00	177+00.00	7.35	694.17
Y1	12+39.00	20+00.00	6.99	197.01
Y1	20+00.00	21+50.00	5.10	28.33
Y1	21+50.00	30+00.00	6.99	220.06
Y7	13+50.00	14+50.00	4.99	18.48
Y7	14+50.00	15+00.00	4.62	8.56
Y7	15+00.00	15+71.69	3.30	8.76
Y7	17+21.26	18+50.00	3.30	15.73
Y7	18+50.00	20+30.00	4.99	33.27
Y10	10+20.00	11+50.00	3.35	16.13
Y10	12+50.00	13+90.00	3.35	17.37
Y14	11+50.00	15+75.00	6.71	105.62
Y14	15+75.00	19+50.00	5.86	81.39
Y14	19+50.00	21+00.00	4.20	23.33
Y14	22+50.00	25+50.00	4.20	46.67
Y14	25+50.00	26+50.00	5.86	21.70
Y14	26+50.00	31+00.00	6.71	111.83
Y16	10+50.00	11+50.00	2.34	8.67
Y16	11+50.00	13+21.00	4.79	30.34
RBT	10+00.00	10+40.00	5.15	7.63
RBT	10+40.00	11+60.00	2.59	11.51
RBT	11+60.00	12+00.00	5.15	7.63
RBT	12+00.00	13+40.00	2.59	13.43
			TOTAL	4007.0
			TOTAL	4887.9

R-5963A ROCK EXCAVATION AVERAGE END AREAS

Rock Excavation				Rock Excavation		Rock Excavation			
	End Area Method			End Area Method		End Area Method			
ALIGNMENT END AREA VOLUME		ALIGNMENT END AREA VOLUME			ALIGNMENT	VOLUME			
L-	EXC	EXC		EXC	EXC		EXC	EXC	
0+25.	0	0.7							
0+50. 0+65.	1.41 11.56	0.7 3.6							
1+00.	358.03	239.5							
11+50.	196.58	513.5			+				
2+00.	417.9	569.0							
2+25.	0	193.5							
2+75.	0	0.0							
3+00.	308.53	142.8							
3+50.	0.67	286.3							
3+25.	0							<u> </u>	
3+50.	96.39	44.6			 				
4+00.	223.73	296.4							
4+25.	0	103.6							
	SUBTOTAL 10+20 TO 43+50	2394							
58+75.	0	40.0							
59+00. 59+25.	22.06	10.2 10.2							
13TZU.	0 SUBTOTAL 43+50 TO 75+78	10.2 21				—	 		
	30B101AL 43+30 10 73+70	21							
31+25.	0								
1+50.	967.81	448.1							
31+75.	0	448.1							
32+75.	0								
33+00.	868.77	402.2							
33+25.	0 SUBTOTAL 80+42 TO 111+00	402.2 1 701				-	 		
	305101AL 00+42 10 111+00	1701							
151+75.	0								
152+00.	0.96	0.4							
152+50.	107.96	100.9							
153+00.	0.04	100.0							
153+25.	0	0.0							
150.75									
153+75. 154+00.	0 100.23	46.4							
54+25.	0	46.4							
	SUBTOTAL 135+26 TO 165+00	295							
	1								
	 				 				
	1								
	1								
	1								
	+ +						 		
	 				 				
	1								
	i								

COMPUTED BY: TGS

CHECKED BY: SECTION: 200

CLEARING AND GRUBBING

* Calculate Acreage for Tree Areas Only

	o riordage for i	ree Areas Only		AREA FROM		
	07471011	07471011			\4/15 . 711	20114 DE EEEE
LINE	STATION	STATION	LOCATION	CADD OR LENGTH	WIDTH	SQUARE FEET
L				2,016,364.00		2,016,364.00
Y14				2,831.00		2,831.00
		Total Sq. Feet		<u> </u>	Total Sq. Feet	2,019,195.00
		43560 Sq. Feet/A	ACRE		Acres*	46.35
					SAY	47.00

SECTION: 205

SEALING ABANDONED WELLS

GEOTECH REPORT DATED 11/25/24 RECOMMENDED
2 EACH
SAY 2 EA

COMPUTED BY: TGS 2/17/25

SECTION: 225

UNDERCUT

GEOTECHNICAL ENGINEERING REPORT DATED 11/25/24 REOMMENDED
850 CY UNDERCUT FOR EMBANKMENT STABILITY
4100 CY GRADE POINT UNDERCUT
5425 UNDERCUT FOR SUBGRADE STABILITY
2000 CY CONTINGENCY
TOTAL 12,375 CY

COMPUTED BY: TGS 2/17/25

COMPUTED BY: TGS 2/12/2025

CHECKED BY: SECTION: 200 OR 226

SUPPLEMENTARY CLEARING AND GRUBBING

CLEARING AND GRUBBING = SUPPLEMENTARY
CLEARING AND GRUBBING

0 THRU 10 ACRES = 1 ACRES

11 THRU 25 ACRES = 2 ACRES

26 THRU 50 ACRES = 3 ACRES

51 THRU 80 ACRES = 4 ACRES

=

ACRES SUPPLEMENTARY CLEARING AND GRUBBING

80 ACRES OR MORE

3 ACRES

5 ACRES

SECTION: 235

EMBANKMENT SETTLEMENT GAUGES

GEOTECH REPORT DATED 11/25/24 RECOMMENDED
5 EACH
SAY 5 EA

COMPUTED BY: TGS 2/17/25

COMPUTED BY: TGS 2/17/2025

CHECKED BY: SECTION: 250

REMOVAL OF EXISTING ASPHALT PAVEMENT

(FILL IN THE BLANK FOR 'ASPHALT' OR 'CONCRETE'PAVEMENT)

LINE	STATION	STATION	LOCATION	LENGTH OR AREA	WIDTH	SQUARE YARDS
Y7	14+29	14+60	LT	38.00		4
Y7	14+86	15+17	RT	24.00		3
Y7	15+90	17+03	MED	2850.00		317
Y7	17+65	18+12	LT	108.00		12
					TOTAL	336
				F	0.437	050

SAY

350

R-5963A PROJECT NO.: SHEET OF

TGS 6/12/2024 **COMPUTED BY:**

CHECKED BY: SECTION: 260

PROOF ROLLING

(3 HRS. PER 24' WIDTH PER MILE)

LINE	BEG. STA.	END STA.	*WIDTH	HOURS PER MILE	MILES	HRS.
-L-	10+19.00	75+78.00	40.00	5.00	1.24	6.21
-L-	77+20.00	78+92.00	40.00	5.00	0.03	0.16
-L-	80+42.00	113+60.00	40.00	5.00	0.63	3.14
-L-	113+60.00	130+00.00	90.00	11.25	0.31	3.49
-L-	130+00.00	134+04.00	55.00	6.88	0.08	0.53
-L-	135+25.00	143+90.00	55.00	6.88	0.16	1.13
-L-	143+90.00	156+70.00	75.00	9.38	0.24	2.27
-L-	156+70.00	177+15.00	55.00	6.88	0.39	2.66
-Y1-	12+39.00	29+63.00	10.00	1.25	0.33	0.41
-Y10-	10+20.00	11+61.00	65.00	8.13	0.03	0.22
-Y10-	12+39.00	13+90.00	65.00	8.13	0.03	0.23
-Y14-	11+48.00	31+05.00	24.00	3.00	0.37	1.11
-Y16-	10+75.00	12+50.00	15.00	1.88	0.03	0.06
					TOTAL	21.63

SECTION: 265

SELECT GRANULAR MATERIAL

GEOTECHNICAL ENGINEERING REPORT DATED 11/25/24
RECOMMENDED 850 CY TO BACKFILL UNDERCUT FOR EMBANKMENT STABILITY
AND 5425 CY TO BACKFILL UNDERCUT FOR SUBGRADE STABILITY
TOTAL SELECT GRANULAR MATERIAL = 850 CY + 5425 CY = 6275 CY
SAY 6275 CY

COMPUTED BY: AMM 2/17/25 CHECKED BY: TGS

SECTION: 265

SELECT GRANULAR MATERIAL, CLASS III

GEOTECHNICAL ENGINEERING REPORT DATED 11/25/24
RECOMMENDED 2000 CY AS A CONTINGENCY ITEM
SAY 2000 CY

COMPUTED BY: AMM 2/17/25 CHECKED BY: TGS

SECTION:

270

GEOTEXTILE FOR SOIL STABILIZATION

GEOTECHNICAL ENGINEERING REPORT DATED 11/25/24 RECOMMENDED 7425 SY				
SAY 7425 SY FOR ROADWAY				
4600 SY FROM EROSION CONTROL				
SAY 4600 SY				

COMPUTED BY: TGS 3/5/25 CHECKED BY: TGS

SECTION: SP

GEOTEXTILE FOR ROCK EMBANKMENTS

GEOTECH REPORT DATED 11/25/24 RECOMMENDED
3180 SY FOR ROCK EMBANKMENTS
SAY 3180 SY

COMPUTED BY: TGS 2/17/25

SECTION: SP

TYPE I BRIDGE APPROACH FILL

1 LS AT -L-	STA. 76+49.00 (PER GEOTECH FOUNDATION RECS DATED	12/30/24)
1 LS AT -L- STA	A. 135+00.00 (LEFT) (PER GEOTECH FOUNDATION RECS DA	TED 1/13/25)
1 LS AT -L- STA	135+00.00 (RIGHT) (PER GEOTECH FOUNDATION RECS D	ATED 1/13/25)

CHECKED BY:

COMPUTED BY: TGS 3/11/25

SECTION: SP

ROCK EMBANKMENTS

GEOTECH REPORT DATED 11/25/24 RECOMMENDED
16,640 TON SELECT MATERIAL, CLASS VII FOR ROCK EMBANKMENTS
2,380 TON RIP RAP CLASS A (SEE RIP RAP QUANTITY SHEET)
2,380 TON RIP RAP CLASS B (SEE RIP RAP QUANTITY SHEET)
1,730 TON SELECT MATERIAL, CLASS VI FOR ROCK EMBANKMENTS
3,180 SY GEOTEXTILE FOR EMBANKMENTS
(SEE GEOTEXTILE FOR ROCK EMBANKMENTS QUANTITY SHEET)

COMPUTED BY: TGS 3/4/25

PROJECT NO.: COMPUTED BY:

R-5963A

TGS

2/26/2025

SHEET OF

SECTION: 300

CHECKED BY:

FOUNDATION CONDITIONING MATERIAL MINOR STRUCTURES

26076

LIN. FT

Χ

0.106

=

2764.06 **TONS**

SAY

2800 **TONS**

FOR UTILITIES:

93.75 **TONS**

SAY

100 TONS

FOUNDATION CONDITIONING GEOTEXTILE

26076

LIN. FT

Χ

6 FT / 18

=

8692.00 **SY**

SAY

8700 **SY**

FOR UTILITIES:

18.75 **TONS**

SAY

20 TONS

COMPUTED BY: CAJ 2/17/2025

CHECKED BY: TGS 2/17/2025 SECTION: 500

FINE GRADING

NOTE: THE WIDTH IS MEASURED FROM EOP TO EOP

					AREA FROM CADD OR	SQUARE
LINE	STATION	STATION	LOCATION	LENGTH	WIDTH	FEET
L	10+20	75+78			478,449.00	478,449.00
L	77+20	78+92			20,425.00	20,425.00
L	80+42	134+04			519,784.00	519,784.00
L	135+26	177+15			428,246.00	428,246.00
L	177+87	179+25			2,471.00	2,471.00
Y1					39,211.00	39,211.00
Y7					10,229.00	10,229.00
Y14					60,084.00	60,084.00
Y16					3,727.00	3,727.00
					TOTAL IN FT ²	1,562,626.00

174.000.00
173,625.11
1,562,626.00

COMPUTED BY: ED 2/24/2025

CHECKED BY: TGS 2/26/2025 SECTION: 501

SUBGRADE STABILIZATION AREA

LINE	STATION	STATION	LOCATION	LENGTH	AREA FROM CADD OR WIDTH	SQUARE FEET
L	10+20	75+78			324,143.00	324,143.00
L	77+20	78+92			14,294.00	14,294.00
L	80+42	134+04			358,827.00	358,827.00
L	135+26	177+15			310,462.00	310,462.00
L	177+87	179+25			3,098.00	3,098.00
			+			
		<u> </u>			TOTAL IN FT ²	1,010,824.00

TOTAL IN YD²

SAY

112,313.78

113,000.00

SECTION:

501

LIME TREATED SOIL (SLURRY METHOD)

GEOTECH REPORT DATED 11/11/24 RECOMMENDED
HALF OF THE SUBGRADE ON -L- BE TREATED WITH LIME
TOTAL SUBGRADE STABILIZATION AREA = 113,000 SY
1/2 SUBGRADE STABILIZATION AREA = 56,500 SY
SAY 56,500 SY LIME TREATED SOIL (SLURRY METHOD)
LIME TONS = 56,500 SY x 24 LBS/SY x 1 TON / 2000 LBS = 678 TONS
SAY 700 TONS LIME FOR LIME TREATED SOIL

COMPUTED BY: TGS 2/17/25

SECTION: 505

SHALLOW UNDERCUT

SHIELO W CHELLOT
GEOTECH REPORT DATED 11/25/24 RECOMMENDED
750 CY SHALLOW UNDERCUT AS A CONTINGENCY
PAVEMENT AND SUBGRADE REPORT DATED 11/11/24 RECOMMENDED
750 CY SHALLOW UNDERCUT AS A CONTINGENCY
750 CY + 750 CY = 1500 CY
SAY 1500 CY

COMPUTED BY: TGS 2/17/25

SECTION: 505

CLASS IV SUBGRADE STABILIZATION

GEOTECH REPORT DATED 11/25/24 RECOMMENDED
1500 TON CLASS IV SUBGRADE STABILIZATION AS A CONTINGENCY
PAVEMENT AND SUBGRADE REPORT DATED 11/11/24 RECOMMENDED
6310 TON CLASS IV SUBGRADE STABILIZATION
1500 TON + 6310 TON =
SAY 7,810 TON

COMPUTED BY: TGS 2/17/25

SECTION: SP

GEOTEXTILE FOR SUBGRADE STABILIZATION

RECOMMENDATIONS FOR PAVEMENT AND SUBGRADE REPORT DATED 11/11/24
RECOMMENDED 12,880 SY
GEOTECHNICAL ROADWAY RECOMMENDATION REPORT DATED 11/25/24
RECOMMENDED 2,250 SY
12,880 SY + 2,250 SY = 15,130
SAY 15,130 SY

COMPUTED BY: TGS 2/17/25

SECTION: 510

STABILZER AGGREGATE

STRUCTURES GEOTECH REPORT DATED 11/11/24 RECOMMENDED
500 TON
SAY 500 TON

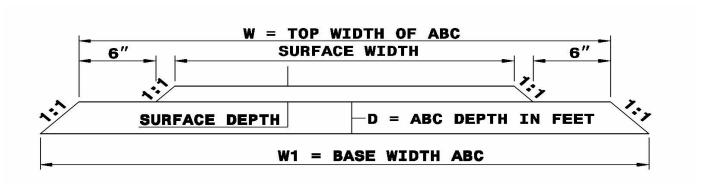
COMPUTED BY: TGS 2/17/25

PROJECT NO.: SHEET OF

COMPUTED BY:

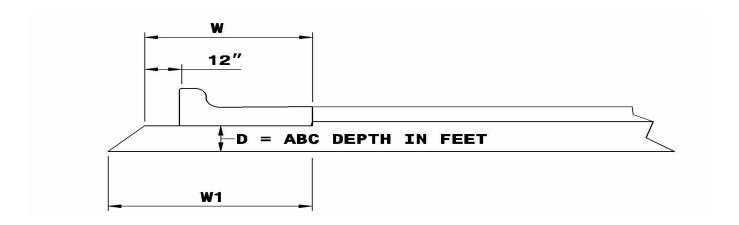
CHECKED BY: SECTION: 520

AGGREGATE BASE COURSE



CALCULATE ABC:

ABC =
$$\frac{\text{LENGTH X ((W+W1)/2) X 1.5(D) X 2700# / YD}^3}{27 \text{ FT}^3 / \text{YD}^3 \text{ x 2000# / TON}} = _____ TONS$$



CALCULATE ABC:

ABC =
$$\frac{\text{LENGTH X ((W+W1))/2 X 1.5(D) X 2700# / YD}^3}{27 \text{ FT}^3 / \text{YD}^3 \text{ x 2000# / TON}} = _____ TONS$$

NOTE: WHEN ALL CALCULATIONS ARE COMPLETE AND TOTALED SEE THE ROADWAY DESIGN MANUAL, PART I, 11-B".

COMPUTED BY: TGS 2/17/2025

CHECKED BY: SECTION: 520

AGGREGATE BASE COURSE

LINE STATION STATION OR AREA L MUP				LENGTH	W	W1	D	
L MUP 355,156.00 0.50 13,318.35 L MUP 502.00 0.63 23.53 Y7 DRIVEWAY 138.00 0.50 5.18 Y14 DRIVEWAYS 4,392.00 0.50 164.70	LINE	STATION	STATION	OR AREA	(FT)	(FT)	(FT)	TONS
L MUP 502.00 0.63 23.53 Y7 DRIVEWAY 138.00 0.50 5.18 Y14 DRIVEWAYS 4,392.00 0.50 164.70	L	MUP						13,318.35
Y7 DRIVEWAY 138.00 0.50 5.18 Y14 DRIVEWAYS 4,392.00 0.50 164.70 1 </td <td>L</td> <td>MUP</td> <td></td> <td></td> <td></td> <td></td> <td>0.63</td> <td></td>	L	MUP					0.63	
Y14 DRIVEWAYS 4,392.00 0.50 164.70 1 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Y14 DRIVEWAYS 4,392.00 0.50 164.70 1 </td <td>Y7</td> <td>DRIVEWAY</td> <td></td> <td>138.00</td> <td></td> <td></td> <td>0.50</td> <td>5.18</td>	Y7	DRIVEWAY		138.00			0.50	5.18
TOTAL 1351176								
TOTAL 1354176								
TOTAL 1351176								
TOTAL 1351176								
TOTAL 1351176								
TOTAL 1351176								
TOTAL 13.511.76								
TOTAL 13.511.76						1		
TOTAL 1351176						†		
TOTAL 1351176						+		
TOTAL 13.511.76								
TOTAL 13 511 76						+		
TOTAL 1351176				+		+		
TOTAL 13 511 76						+		
TOTAL 13 511 76						+		
TOTAL 13 511 76						1		
TOTAL 13 511 76						 		
TOTAL 13 511 76				-		-		
TOTAL 13 511 76						-		
TOTAL 13 511 76								
TOTAL 13 511 76						<u> </u>		
TOTAL 13 511 76						1		
TOTAL 13 511 76						1		
TOTAL 13 511 76								
TOTAL 13 511 76								
TOTAL 13 511 76								
TOTAL 13 511 76								
TOTAL 13 511 76								
TOTAL 13 511 76								
TOTAL 13 511 76								
TOTAL 13 511 76								
TOTAL 13 511 76						1		
ΤΟΤΔΙ 13 511 76						1		
		1		1		1	TOTAL	13,511.76

TOTAL 13,511.76 SAY 13,600

SECTION: 542

SOIL CEMENT BASE

GEOTECH REPORT DATED 11/11/24 RECOMMENDED
HALF OF THE SUBGRADE ON -L- BE TREATED WITH CEMENT
TOTAL SUBGRADE STABILIZATION AREA = 113,000 SY
1/2 SUBGRADE STABILIZATION AREA = 56,500 SY
SAY 56,500 SY SOIL CEMENT BASE
PORTLAND CEMENT TONS = 56,500 SY x 56 LBS/SY x 1 TON / 2000 LBS = 1582 TONS
SAY 1600 TONS PORTLAND CEMENT FOR CEMENT BASE

COMPUTED BY: TGS 2/17/25

COMPUTED BY: AMM 12/30/2024

CHECKED BY: TGS SECTION: 545

INCIDENTAL STONE BASE

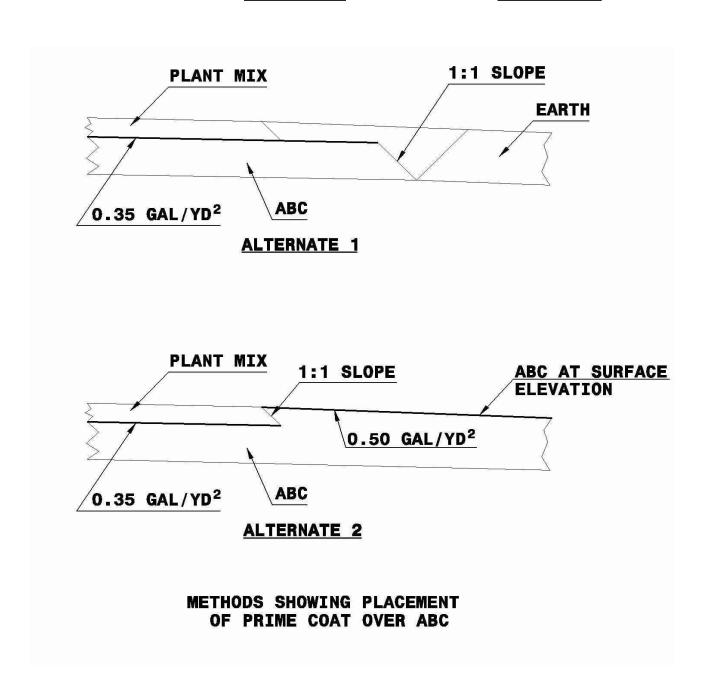
			LENGTH	W	W1	D	
LINE	STATION	STATION	OR AREA	(FT)	(FT)	(FT)	TONS
	CONTINGENCY	(100.00
						1	
						1	
						+	
						+	
						+	
						-	
						1	
						TOTAL	100.00
						SAY	100

COMPUTED BY: TGS

CHECKED BY: SECTION: 600

PRIME COAT

 YD^2 **GAL SOIL TYPE BASE COURSE** Χ 0.30 YD^2 GAL 0.35 **ABC** 160 Χ 56 YD^2 **ABC AT SURFACE** Χ 0.50 GAL



COMPUTED BY: TGS 2/18/2025

CHECKED BY: SECTION: 607

1.5" Milling

Line	Station	Station	Length	Width	Area (sf)	SY
L	177+90.00	179+16.00			6,006	667.33
Y16					3,782	420.22
Y7	SAWCUT				121	13.44
			•		TOTAL	1101
					SAY	1,150

COMPUTED BY: TGS 2/18/2025

CHECKED BY: SECTION: 607

2.5" Milling

Line	Station	Station	Length	Width	Area (sf)	SY
Y1					55,095	6121.67
				<u> </u>	TOTAL	6122
					SAY	6,150

COMPUTED BY: TGS 2/18/2025

CHECKED BY: SECTION: 607

Incidental Milling

Line	Station	Station	Length	Width	Area (sf)	SY
Y7	13+25.00	13+75.00			1,259	139.89
Y7	19+80.00	20+30.00			1,247	138.56
Y14	11+48.00	11+98.00			1,174	130.44
Y14	13+42.00	13+92.00			958	106.44
Y14	30+55.00	31+05.00			2,518	279.78
Y16	12+71.00	13+21.00			1,005	112
					TOTAL	907
					SAY	950

COMPUTED BY:

PROJECT NO.: R-5963A

> 2/13/2025 **AMM**

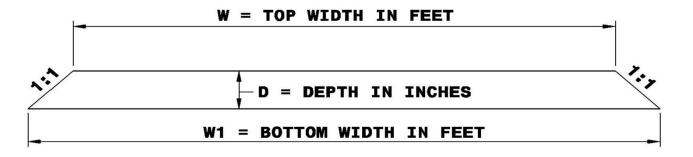
TGS CHECKED BY: SECTION: 610

ASPHALT CONCRETE BASE COURSE TYPE B25.0C

SHEET OF

SAY

22000.00



CALCULATE:	
<u>LENGTH X ((W+W1)/2) X D X 114# / YD2 / IN</u> =	TONS
9 FT ² / YD ² X 2000# / TON	

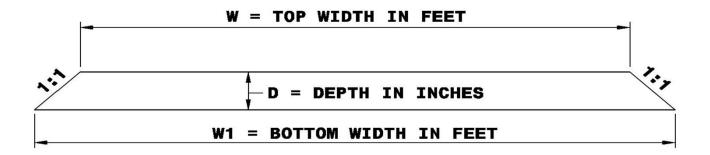
LINE	BEG STA.	END STA.	LENGTH	AREA / W	W1	DEPTH	TONS
L	10+20	75+78		313457		3	5955.68
L	77+20	78+92		6802		3	129.24
L	80+42	134+04		369548		3	7021.41
L	135+26	177+15		316560		3	6014.64
L	177+87	179+25		2409		3	45.77
RBT				14180		3	269.42
Y1				23982		4	607.54
Y7				7882		4	199.68
Y14				48966		4	1240.47
Y16				2656		4	67.29
Y7 WE	EDGING						23.00
Y14 W	EDGING						159.00
Y16 W	EDGING						14.00
·						TOTAL	21747.14

SHEET OF

COMPUTED BY:

CHECKED BY: SECTION: 610

ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 119.0C



CALCULATE:	
LENGTH X ((W+W1)/2) X D X $114# / YD^2 / IN =$	TONS
9 FT ² / YD ² X 2000# / TON	

LINE	BEG. STA.	END STA.	LENGTH	AREA / W	W1	DEPTH	TONS
Y1				55095		2.5	872.34
L	10+20	75+78		281540		4	7132.35
L	77+20	78+92		5253		4	133.08
L	80+42	134+04		338542		4	8576.40
L	135+26	177+15		274572		4	6955.82
L	177+87	179+25		2131		4	53.99
Y1				22385		4	567.09
Y7				15702		4	397.78
Y14				42928		4	1087.51
Y16				2397		4	60.72
Y7 W	 'EDGING						94.00
Y14 V	VEDGING						662.00
Y16 V	VEDGING						11.00
						TOTAL	26604.08
						SAY	27000.00

PROJECT NO.:

R-5963A

COMPUTED BY:

AMM

2/18/2025

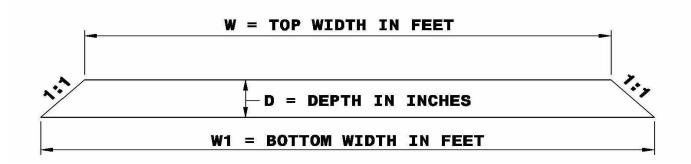
CHECKED BY:

TGS

SECTION: 610

SHEET OF

ASPHALT CONCRETE SURFACE COURSE TYPE \$9.5B



CALCULATE:		
LENGTH X ((W+W1)/2) X D X 110# / YD ² / IN	=	 rons
9 FT ² / YD ² X 2000# / TON		

LINE	BEG. STA.	END STA.	LENGTH	AREA / W	W1	DEPTH	TONS
Y14	DRIVEWAYS			1373		2	16.78
						TOTAL	16.78
						SAY	20.00

CHECKED BY:

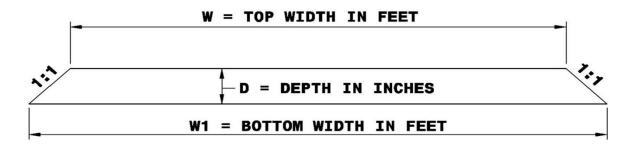
PROJECT NO.: R-5963A&B

COMPUTED BY:

SECTION: 610

SHEET OF

ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C



CALCULATE: <u>LENGTH X ((W+W1)/2) X D X 112# / YD² / IN</u> = ______ TONS $9 \text{ FT}^2 / \text{YD}^2 \text{ X } 2000# / \text{TON}$

LINE	BEG. STA.	END STA.	LENGTH	AREA / W	W1	DEPTH	TONS
MUP				305223		1.5	2848.75
Y16				3782		1.5	35.30
KEYED I	N ISLANDS			27893		1.5	260.33
L	177+90.00	179+16.00		6006		1.5	56.06
L	10+20	75+78		270804		3	5055.01
L	77+20	78+92		5007		3	93.46
L	80+42	134+04		328231		3	6126.98
L	135+26	177+15		273101		3	5097.89
L	177+87	179+25		2253		3	42.06
Y1				76519		3	1428.35
Y7				15149		3	282.78
Y14				43228		3	806.92
Y16				2327		3	43.44
Y7 WI	EDGING						188.00
Y14 W	EDGING						1045.00
Y16 W	EDGING						19.00
						TOTAL	23429.33
						SAY	24000.00

calc: TGS 2/13/25 checked:

-Y7-

Engineer's					
Engineer's Design / Engineer's TIN					
	Wedging				
-Y7- Surface Course	SF	CY			
13+25	0.00				
13+50	1.89	0.9			
13+80	3.58	3.0			
14+00	4.80	3.1			
14+25	4.86	4.5			
14+50	5.89	5.0			
14+65	6.21	3.4			
15+00	5.38	7.5			
15+50	3.31	8.0			
15+72	2.09	2.2			
17+22	6.19				
17+50	6.14	6.4			
18+00	5.59	10.9			
18+50	5.73	10.5			
19+00	5.92	10.8			
19+50	4.75	9.9			
20+00	1.82	6.1			
20+30	0.00	1.0			
		0.0			
		0.0			
		0.0			
		0.0			
		0.0			
		0.0			
		0.0			
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		0.0			
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		0.0			
		0.0			
		0.0			
		0.0			
		0.0			
		0.0			
		0.0			
	ub Total	0.0			
	ub Total	93.1 TON			
Total Tons =	187.70	TON			
Say =	188.00	TON			

Engineer's			
Engineer's Design / Engineer's TIN			
	Wed	ging	
-Y7- Interm. Course	SF	CY	
13+25	0.00		
13+50	0.00	0.0	
13+80	0.00	0.0	
14+00	0.07	0.0	
14+25	0.15	0.1	
14+50	0.66	0.4	
14+65	0.77	0.4	
15+00	0.47	0.8	
15+50	0.15	0.6	
15+72	0.00	0.1	
17+22	5.14		
17+50	5.66	5.6	
18+00	5.33	10.2	
18+50	5.42	10.0	
19+00	4.60	9.3	
19+50	2.13	6.2	
20+00	0.00	2.0	
20+30	0.00	0.0	
		0.0	
	1	0.0	
	1	0.0	
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		0.0	
	ļ	0.0	
		0.0	
	1	0.0	
	Sub Total	45.6	
Total Tons =	93.57	TON	
Say =	94.00	TON	

calc: TGS 2/13/25 checked:

-Y14-

Engineer's Engineer's Design / Engineer's TIN			
_	Wedgi		
-Y14- Surface Course	SF	CY	
11+48	0.00		
12+00	2.53	2.4	
12+50	5.41	7.4	
13+00	5.67	10.3	
13+50	7.87	12.5	
14+00	5.89	12.7	
14+50	6.99	11.9	
15+00	6.37	12.4	
15+50	6.47	11.9	
15+75	6.85	6.2	
16+00	6.85	6.3	
16+50	6.80	12.6	
17+00	6.81	12.6	
17+26	7.32	6.8	
17+50	7.41	6.5	
18+00	7.83	14.1	
18+50	8.24	14.9	
19+00	8.69	15.7	
19+35	9.17	11.6	
19+50	9.07	5.1	
20+00	9.60	17.3	
20+50	11.22	19.3	
20+60	11.21	4.2	
20+90	11.69	12.7	
21+00	11.85	4.4	
21+50	8.46	18.8	
22+00	9.36	16.5	
22+50	8.52	16.5	
22+80	8.99	9.7	
23+00	8.24		
		6.4	
23+16	8.24	4.9	
23+50	7.97	10.2	
23+83	7.88	9.7	
24+00	7.77	4.9	
24+50	7.13	13.8	
24+92	7.11	11.1	
25+00	7.75	2.2	
25+50	6.88	13.5	
26+00	6.86	12.7	
26+27	6.88	6.9	
26+50	6.84	5.8	
26+90	6.14	9.6	
27+00	5.73	2.2	
27+50	6.41	11.2	
27+76	6.36	6.1	
28+00	6.54	5.7	
28+50	6.49	12.1	
28+90	5.71	9.0	
29+00	5.66	2.1	
29+50	8.14	12.8	
30+00	7.29	14.3	
00.00	1.29	14.3	

Engineer's				
Engineer's Design / Engineer's TIN				
	Wed	dging		
-Y14- Interm. Course	SF	CY		
11+48	0.00			
12+00	0.00	0.0		
12+50	0.28	0.3		
13+00	2.48	2.6		
13+50	3.90	5.9		
14+00	4.60	7.9		
14+50	5.18	9.1		
15+00	5.24	9.6		
15+50	3.77	8.3		
15+75	3.29	3.3		
16+00	3.42	3.1		
16+50	3.83	6.7		
17+00	0.23	3.8		
17+26	1.68	0.9		
17+50	3.73	2.4		
18+00	7.97	10.8		
18+50	10.98	17.5		
19+00	11.58	20.9		
19+35	12.23	15.4		
19+50	12.10	6.8		
20+00	12.80	23.1		
20+50	11.79	22.8		
20+60	9.20	3.9		
20+90	5.23	8.0		
21+00	4.88	1.9		
21+50	3.24	7.5		
22+00	2.94	5.7		
22+50	3.07	5.6		
22+80	3.06	3.4		
23+00	2.91	2.2		
23+16	2.99	1.7		
23+50	2.65	3.6		
23+83	1.70	2.7		
24+00	1.07	0.9		
24+50	1.29	2.2		
24+92	5.38	5.2		
25+00	7.50	1.9		
25+50	7.45	13.8		
26+00	5.48	12.0		
26+27	4.39	4.9		
26+50	3.08	3.2		
26+90	1.88	3.7		
27+00	1.98	0.7		
27+50	3.54	5.1		
27+76	3.63	3.5		
28+00	4.04	3.4		
28+50	4.52	7.9		
28+90	3.92	6.3		
29+00	3.74	1.4		
29+50	3.87	7.0		
30+00	3.54	6.9		
30.00	3.34	0.9		

Say =	1045.00	TON
Total Tons =	1044.58	TON
	Sub Total	518.1
31+05	0.00	3.2
30+60	3.88	1.9
30+50	6.11	12.4

12.4	30+50	1.71	4.9
1.9	30+60	0.13	0.3
3.2	31+05	0.00	0.1
518.1		Sub Total	322.5
310.1		Oub Total	022.0
TON	Total Tons =	661.79	TON
TON	Say =	662.00	TON

calc: TGS 2/13/25 checked:

-Y16-

Engineer's					
Engineer's Design / Engineer's TIN					
	Wedgi	na l			
-Y7- Surface Course	SF	CY			
12+49	3.54				
13+00	4.27	7.4			
13+21	0.00	1.7			
		0.0			
		0.0			
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		0.0			
		0.0			
		0.0			
	Sub Total	9.0			
Total Tons =	18.22	TON			
Say =	19.00	TON			

Engineer's					
Engineer's Design / Engineer's TIN					
	Wed	lging			
-Y7- Interm. Course	SF	CY			
12+49	4.77				
13+00	0.63	5.1			
13+21	0.00	0.2			
		0.0			
		0.0			
		0.0			
		0.0			
		0.0			
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		0.0 0.0			
		0.0			
	Sub Total	5.3			
Total Tana -	40.07	TON			
Total Tons =	10.97	TON			
Say =	11.00	TON			

COMPUTED BY: AMM 2/13/2025

CHECKED BY: TGS SECTION: 620

ASPHALT BINDER FOR PLANT MIX

GRADE PG 64-22

SA-1		TONS	X	0.068	=		TONS
S4.75A		TONS	X	0.070	=		TONS
S9.5B		TONS	X	0.065	=		TONS
S9.5C	24,000	TONS	X	0.059	=	1,416.00	TONS
I19.0C	27,000	TONS	X	0.048	=	1,296.00	TONS
B25.0C	22,000	TONS	X	0.045	=	990.00	TONS
PADC, TYPE P-57		TONS	X	0.030	=		TONS
PADC, TYPE P-78M		TONS	X	0.030	= -		TONS
PATCHING EXISTING PAVEMENT		TONS	X	0.048	=		TONS

SUBTOTAL TONS ASPHALT BINDER

FOR PLANT MIX, GRADE PG 64-22 = 3,702.00 TONS

TOTAL TONS ASPHALT BINDER			
FOR PLANT MIX	= _	3,702.00	TONS
	SAY	3,705	TONS

THIS SHEET IS SHOWING RATES FROM THE 2025 QMS ASPHALT MANUAL

COMPUTED BY: TGS 2/18/2025

CHECKED BY: SECTION: 654

PAVEMENT REPAIR

				AREA FROM	
		PIPE SIZE		CADD OR	SQUARE
LINE	STATION	(IN)	LENGTH	WIDTH	FEET
Y1	23+09	30	32	9.08	291
Y1	29+51	18	32	7.83	251
Y7	15+65	24	26	8.50	221
Y7	16+04	15	25	7.58	190
Y7	17+39	18	25	7.83	196
Y14	19+62	18	37	7.83	290
Y14	22+45	18	39	7.83	306
				TOTAL IN FT ²	1,743
				SAY	1,750
		 		9 211	-,
	TOTAL TONAGE				
BASE	=(A X D X 114 LBS/SY/IN)/(9 SF X 2000 LBS/TON)	121.92			
BINDER	= TONS ASPHALT X 0.045		TOTAL	127.40	
		33.0	SAY	130.00	TONS
		I		. 5 5 1 6 6	

COMPUTED BY: TGS 2/18/2025

CHECKED BY: SECTION: SP

REINFORCED CONCRETE TRUCK APRON

		SQUARE			SQUARE
LINE	STATION TO STATION	FEET	LINE	STATION TO STATION	FEET
L		2362.00	/		
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			1	Column Total	
			1 1	TOTAL IN SQUARE YARDS	262.44
	Column Total	2362.00	1	SAY	270
	Odialilii Total	2002.00	J L	UAI	210

SECTION: 806

Control-of-Access Markers

TOTAL (EA): 199
SAY 199 Each

COMPUTED BY: TGS 12/30/24

CHECKED BY:

SECTION: 806

Right-of-Way	Markers
---------------------	----------------

TOTAL (EA): 4
SAY 4 Each

COMPUTED BY: TGS 12/30/24

CHECKED BY:

PROJECT NO.: R-5963A	SHEET	OF
	SECTION	: 815
SUBSURFACE DRAINS		
SUBDRAIN EXCAVATION (USE 6' DEPTH FOR PROOF ROLLING AND 4' DEPTH ELSEWHERE)	4170.0	YD ³
GEOTEXTILE FOR SUBSURFACE DRAINS	12400	YD ²
SUBDRAIN COARSE AGGREGATE (USE 3' DEPTH)	2090.0	YD ³
6" PERFORATED SUBDRAIN PIPE	12400	LIN. FT
6" OUTLET PIPE (6 LINEAR FT. PER PIPE OUTLET)	150	LIN. FT
SUBDRAIN PIPE OUTLET (USE 1 PER 500' OF PIPE)	25	EACH
EXCAVATION 12400 LIN. FT. x 6 DEPTH x 0.056 =	4166.4	YD ³
AGGREGATE 12400 LIN. FT. x 3' DEPTH x 0.056 =	2083.2	YD ³

NOTE: USE 6" SUBDRAIN PIPE UNLESS ANOTHER SIZE IS SPECIFICALLY RECOMMENDED BY THE GEOTECHNICAL UNIT.

Calculated by: TGS 2/17/25

Checked by:

COMPUTED BY: TGS 2/18/2025

CHECKED BY: SECTION: 816

SHOULDER DRAINS

(PAVEMENT MANAGEMENT TO FURNISH RELATED INFORMATION)

LINE	STATION TO STATION	SHOULDER DRAIN PIPE (FT)	SHOULDER DRAINS (FT)	OUTLET PIPES (FT)	CONCRETE PADS (EA)
	RETAINING WALL #1	160	150	40	2
	RETAINING WALL #2	160	150	40	2
	TOTAL	320	300	80	4
	SAY	320	300	80	4

SECTION: 818

BLOTTING SAND

GEOTECHNICAL ENGINEERING REPORT DATED 11/11/24 RECOMMENDED
20 TON AS A CONTINGENCY ITEM
SAY 20 TON

COMPUTED BY: TGS 2/17/25

CHECKED BY:

COMPUTED BY: TGS 2/18/2025

CHECKED BY: SECT. 846

EXPRESSWAY GUTTER

LINE	STATION	STATION	SIDE	LENGTH
RBT				333.0
			+	
			+	
			+	
			1	
			+	
		1	TOTAL	333.0
			TOTAL	
			SAY	340

COMPUTED BY: TGS 2/18/2025

CHECKED BY: SECT. 846

9" X 18" CONCRETE CURB

LINE	STATION	STATION	SIDE	LENGTH
RBT				265.0
	•	•	TOTAL	265.0
			SAY	270

COMPUTED BY: TGS 2/18/2025

CHECKED BY: SECT. 846

1'-6" CONCRETE CURB & GUTTER

LINE	STATION	STATION	SIDE	LENGTH
L	10+20	78+90		10,594.0
L	80+42	117+00		6,267.0
L	126+00	177+05		8,673.0
				05.501.0
			TOTAL	25,534.0
			SAY	25,600

COMPUTED BY: TGS 2/18/2025

CHECKED BY: SECT. 846

2'-6" CONCRETE CURB & GUTTER

LINE	STATION	STATION	SIDE	LENGTH
L	10+20	75+78		2,324.0
L	80+42	177+15		12,533.0
Y7				1,256.0
Y14				1,630.0
		1		
			TOTAL	17,743.0
			SAY	17,800

COMPUTED BY: TGS 2/18/2025

CHECKED BY: SECTION: 848

6" CONCRETE DRIVEWAY

LINE	STATION	LOCATION	SQUARE FT	SQUARE YARDS
Y14	19+40	RT	495	55.00
Y14	20+60	RT	529	58.78
Y14	22+80	RT	474	52.67
Y14	23+15	RT	445	49.44
Y14	23+50	LT	485	53.89
Y14	24+90	LT	372	41.33
Y14	26+25	LT	529	58.78
			TOTAL	369.8888889
			SAY	370

COMPUTED BY: TGS 2/18/2025

CHECKED BY: SECTION: 848

CONCRETE CURB RAMP

LINE	STATION	LOCATION	NO. OF RAMPS
L			120
			0
	Column Total		120

LINE	STATION	LOCATION	NO. OF RAMPS
	Column Total		
	Total		120
	Say		120

SHEET OF

R-5963A PROJECT NO.: SHEET OF

2/18/2025 **COMPUTED BY: AMM CHECKED BY: TGS** SECTION: 852

5" MONOLITHIC ISLANDS (KEYED-IN)

		SQUARE			SQUARE
LINE	STATION TO STATION	FEET	LINE	STATION TO STATION	FEET
L		19014			
Y7		1905			
Y14		10176			
			1		
			1		
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			1		
	1				
			1	Column Total	
	+		1	TOTAL IN SQUARE YARDS	3,455.00
	Column Total	31095.00	1	SAY	3,460
		01000.00	J		J,700

PROJECT NO.: R-5963A COMPUTED BY: AMM CHECKED BY: TGS

SP

PEDESTRIAN SAFETY RAIL

Line	Begin Station	End Station	Side	Description	LF
-L-	74+94	75+67	RT		73
-L-	74+94	75+91	LT		97
-L-	77+05	78+06	RT		102
-L-	77+34	78+05	LT		73
-L-	131+38	133+87	RT		250
-L-	133+28	134+23	LT		97
-L-	135+07	137+63	RT		257
-L-	135+43	135+99	LT		56
				+	
				+	
		Total			1005
		SAY		+	1,010

	Summary						
Line Item	Des	Sec No.	Description	Quantity	Unit		
4025000000-E		901	CONTRACTOR FURNISHED, TYPE A SIGN	2,970	SF		
4025000000-Е		901	CONTRACTOR FURNISHED, TYPE B SIGN	165	SF		
4025000000-E		901	CONTRACTOR FURNISHED, TYPE D SIGN	203	SF		
4025000000-E		901	CONTRACTOR FURNISHED, TYPE E SIGN	985	SF		
4025000000-Е		901	CONTRACTOR FURNISHED, TYPE F SIGN	1,114	SF		
4048000000-E		902	REINFORCED CONCRETE SIGN FOUNDATIONS	9	CY		
4060000000-E		903	SUPPORTS, BREAKAWAY STEEL BEAM	8,593	LB		
		-	TYPE D U-CHANNEL POSTS	518	LF		
		-	TYPE E U-CHANNEL POSTS	2,721	LF		
		-	TYPE F U-CHANNEL POSTS	1,676	LF		
4072000000-E		903	SUPPORTS, 3-LB STEEL U-CHANNEL	4,915	LF		
4096000000-N		904	SIGN ERECTION, TYPE D	13	EA		
4102000000-N		904	SIGN ERECTION, TYPE E	125	EA		
4108000000-N		904	SIGN ERECTION, TYPE F	63	EA		
4110000000-N		904	SIGN ERECTION, TYPE A (GROUND MOUNTED)	20	EA		
4110000000-N		904	SIGN ERECTION, TYPE B (GROUND MOUNTED)	6	EA		
411610000-N		904	SIGN ERECTION, RELOCATE TYPE F (GROUND MOUNTED)	33	EA		
4152000000-N		907	DISPOSAL OF SIGN SYSTEM, STEEL BEAM	6	EA		
4155000000-N		907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	24	EA		
4236000000-N 4238000000-N		907 907	DISPOSAL OF SIGN, A or B (GROUND MOUNTED) DISPOSAL OF SIGN, D, E OR F	12 33	EA EA		
4238000000-N		907	DISPUSAL OF SIGN, D, E UK F	33	EA		

North Carolina Department of Transportation Preliminary Estimate

TIP No. R-5963A Final County: Chatham

Location

Prepared By: Adam Miller

440000000-E	1110	Work Zone Signs (Stationary)	144	SF	\$	_
4405000000-E	1110	Work Zone Signs (Portable)	768	SF	\$	-
4410000000-E	1110	Work Zone Signs (Barricade Mounted)	368	SF	\$	-
4430000000-E	1130	Drums	93	EA	\$	-
4435000000-E	1135	Cones	339	EA	\$	-
4445000000-E	1145	Barricades (Type III)	72	LF	\$	-
4455000000-E	1150	Flagger	0	DAY	\$	-
4510000000-N	1190	Law Enforcement	0	HR	\$	-
4516000000-N	1180	Skinny Drums	131	EA	\$	-
4650000000-N	1251	Temporary Raised Pavement Markers	71	EA	\$	-
4810000000-E	1205	Paint Pavement Marking Lines (4")	88250	LF	\$	-
4820000000-E	1205	Paint Pavement Marking Lines (8")	2500	LF	\$	-
4835000000-E	1205	Paint Pavement Marking Lines (24")	450	LF	\$	-
4845000000-E	1205	Paint Pavement Marking Symbol	50	LF	\$	-

Total: \$ -

2024 English Standards & Quantity Esti	mates					
	Name: Project Engineer:	David Hursey, PE Vance Blanton, PE		Date:	02/13/25	
CONTRACT # 48599.1.1 TIP # R-5963A	COUNTY		DIV.	8 MANA	GEMENT UNIT DDRL	•
PRIMARY ROUTE? NO	LETTING	3/20/2023		WILLAGE	3.173 miles	
STANDARDS NEEDED:	<u>!</u>	DETAILS NEEDE	<u>D:</u>	SUMMARY SHEE		
1605.01 (TSF) 1632.02 (RIST-B)				-Matting Summary	Sneet	
1606.01 (SSCF) 1632.03 (RIST-C) 1607.01 (GCE) 1633.01 (SC-A) 1622.01 (TSDN) 1633.02 (SC-B)	,	Concrete Washou	t Structure	-Stabilization Guid	elines	
				REFORESTATIO	N SHEETS:	
1630.05 (T.DIV) 1640.01 (BAFFLE)						
1631.01 (MATT)						
# OF YEARS FOR PROJECT CONSTRUCTION MAINTENANCE FACTOR			2.5 YRS 2.25			
CONSTRUCTION ENTRANCES		•				
# OF ENTRANCES: FILTRATION GEOTEXTILE REQUIRED		600	SY			
CLASS A STONE REQUIRED		200	TONS			
SPECIAL STILLING BASINS						
NO. OF DRILLED PIERS # OF SPECIAL STILLING BASINS		0	EA			
FILTRATION GEOTEXTILE REQUIRED		0	SY			
SEDIMENT CONTROL STONE	<u>.</u>	0	TON			
# OF SILT CHECKS TYPE A with MATTING & FLOCCUL MATTING FOR EROSION CONTROL REQUIRED	<u>ANT</u>	186 930	gv	# OF WATTI	ES WITHOUT FLOCCULAN	<u>IT</u> 0
FLOCCULANT REQUIRED		1256		# OF COIR FIBER WATTI	ES WITHOUT FLOCCULAN	<u>IT</u> 154
# OF TEMPORARY STREAM CROSSINGS		0				
FILTRATION GEOTEXTILE REQUIRED			SY LF			
TEMPORARY PIPE FOR STREAM CROSSING SEDIMENT CONTROL STONE			TON			
EROSION CONTROL STONE, CLASS B		0	TON			
# OF CSX RAILROAD BRIDGE CROSSINGS		0				
TEMPORARY SILT FENCE REQUIRED FILTRATION GEOTEXTILE REQUIRED	-		LF SY			
ADDITIONAL DDG IECT INFORMATION	-					
ADDITIONAL PROJECT INFORMATION RIPARIAN BUFFERS	(50 FT.) ON PROJECT	YES \blacktriangledown		PROJECT I	N FALLS LAKE WATERSHE	D NO
HIGH QUALITY WATER	(HQW) ON PROJECT	NO 🔻		PROJECT IN	JORDAN LAKE WATERSHE	D YES \blacksquare
DESIGN STANDARDS IN SENSITIVE W	ATERSHEDS (DSSW)	NO V		EARTHEN	I DAM WITH SKIMMER USE	D NO ▼
303(d) STREAM FOR CONSTRUCTION-	RELATED TURBIDITY	NO 🔻		AESTHETIC I	ITTER PICKUP REQUESTE	D NO ▼
BORROW EXC	CAVATION QUANTITY	0	CY	COIR FIBER WATTL	E SILT FENCE BREAK USE	:D NO ▼
CRIMPING SP NEEDED ON PROJECT:	YES					
CCPCUA PERMIT	AND SP REQUIRED :	NO				
SPECIAL PROVISIONS NEEDED:						
1. SEEDMIX TYPE: East			18. TEMP. DIVE	RSION		
3. NUTRIENT MANAGEMENT TRAINING (add above Tel	mp. Seeding)		20. SAFETY FE	NCE		
NATIVE SEEDING & MULCHING (add above Temp. So. CRIMPING (add above Temp. Seeding)	eeding):	West				

39. CONC. WASHOUT STR.

13. ESA

15. MINIMIZE
16. MATERIALS MANAGEMENT
17. WASTE/BORROW

Project Quantities

ITEM NUMBER	SECTION	TRNS-PORT ITEM DESCRIPTION	QUANTITY UNIT
0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION	4600 SY
1077000000-E	1005	#57 STONE	0 TON
3628000000-E		RIP RAP, CLASS I	0 TON
3635000000-E		RIP RAP, CLASS II	0 TON
3642000000-E 3649000000-E	876 876	RIP RAP, CLASS A RIP RAP, CLASS B	0 TON 0 TON
3651000000-E		BOULDERS	0 TON
3656000000-E		GEOTEXTILE FOR DRAINAGE	1350 SY
6000000000-E		TEMPORARY SILT FENCE	50480 LF
6006000000-E	1610	EROSION CONTROL STONE, CLASS A	2590 TON
6009000000-E	1610	EROSION CONTROL STONE, CLASS B	7780 TON
6012000000-E		SEDIMENT CONTROL STONE	6325 TON
6015000000-E		TEMPORARY MULCHING	57.00 ACR 2400.00 LB
6018000000-E 6021000000-E	1620 1620	SEED FOR TEMPORARY SEEDING FERTILIZER FOR TEMPORARY SEEDING	12.00 TON
6024000000-E		TEMPORARY SLOPE DRAINS	2835 LF
6029000000-E	SP	SAFETY FENCE	2720 LF
6030000000-E	1630	SILT EXCAVATION	18190 CY
6036000000-E		MATTING FOR EROSION CONTROL 67700 SY+DITCH 43450 SY	111150 SY
6037000000-E	1629	COIR FIBER MAT	9715 SY
6038000000-E	SP	PERMANENT SOIL REINFORCEMENT MAT - (TYPE 1) 0 SY + 0 SY PERMANENT SOIL REINFORCEMENT MAT - (TYPE 2) 0 SY	0 SY
6038000000-E 6038000000-E	SP SP	PERMANENT SOIL REINFORCEMENT MAT - (TYPE 2) 0 SY 0 SY PERMANENT SOIL REINFORCEMENT MAT - (TYPE 3) 0 SY 0 SY	0 SY 0 SY
6038000000-E	SP	PERMANENT SOIL REINFORCEMENT MAT - (TYPE 4) 0 SY 0 SY	0 SY
6038000000-E		PERMANENT SOIL REINFORCEMENT MAT - (TYPE 5) 0 SY 0 SY	0 SY
6042000000-E	1632	1/4" HARDWARE CLOTH	12300 LF
6043000000-E	1644	LOW PERMEABILITY GEOTEXTILE	4600 SY
6045000000-E		**" TEMPORARY PIPE - (15")	0 LF
6045000000-E	SP	**" TEMPORARY PIPE - (18")	0 LF
6045000000-E		**" TEMPORARY PIPE - (24")	0 LF
6045000000-E	SP 1636	**" TEMPORARY PIPE - (36") TEMPORARY PIPE FOR STDEAM CROSSING	0 LF 0 LF
6046000000-E 6048000000-E	SP	TEMPORARY PIPE FOR STREAM CROSSING FLOATING TURBIDITY CURTAIN	0 LF 0 SY
6069000000-E		STILLING BASINS	0 CY
6070000000-N	1639	SPECIAL STILLING BASINS	0 EA
6071010000-E	1642	WATTLE	0_LF
6071012000-E	1642	COIR FIBER WATTLE	6570 LF
6071013000-E	1642	WATTLE BARRIER	0 LF
6071014000-E	1642	COIR FIBER WATTLE BARRIER	930 LF
6071002000-E 6071030000-E	1642 1640	FLOCCULANT COIR FIBER BAFFLE	3585 LB 11310 LF
6071050000-E	1644	**" SKIMMER - (1-1/2")	0 EA
6071050000-E	1644	**" SKIMMER - (2")	0 EA
6071050000-E	1644	**" SKIMMER - (2-1/2")	0 EA
6071050000-E	1644	**" SKIMMER - (3")	0 EA
6071050000-E	1644	**" SKIMMER - (4")	0 EA
6071050000-E	1644	**" SKIMMER - (5")	0 EA
6082000000-E	1657	COMPOST BLANKET	0 ACR 48.00 ACR
6084000000-E 6087000000-E	1660 1660	SEEDING AND MULCHING MOWING	48.00 ACR
6090000000-E	1661	SEED FOR REPAIR SEEDING	600.00 LB
6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	2.25 TON
6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	1150.00 LB
6105000000-E	1663	WATER	0.0 M/G
6108000000-E	1665	FERTILIZER TOPDRESSING	34.25 TON
6111000000-E		IMPERVIOUS DIKE	0 LF
6114500000-N		SPECIALIZED HAND MOWING RESPONSE FOR EROSION CONTROL	10 MHR 125 EA
6117000000-N 6118000000-N	1675 SP	ROOTWADS	0 EA
6120000000-K		CULVERT DIVERSION CHANNEL	0 CY
6123000000-E		REFORESTATION	0.00 ACR
6126000000-E		STREAMBANK REFORESTATION	0.00 ACR
6129000000-E		WETLAND REFORESTATION	0 ACR
6117500000-N		CONCRETE WASHOUT STRUCTURE	2 EA
6114800000-N		MANUAL LITTER REMOVAL	0 MHR
6114900000-E 6115000000-E		LITTER DISPOSAL MECHANICAL LITTER REMOVAL	0 TON 0 SMI
6132000000-E		GENERIC EROSION CONTROL ITEM - FABRIC INSERT INLET PROTECTION - (TYPE 1)	0 SWII 0 EA
6132000000-E		GENERIC EROSION CONTROL ITEM - FABRIC INSERT INLET PROTECTION - (TYPE 2)	0 EA
6125000000-E		GENERIC EROSION CONTROL ITEM - FABRIC INSERT INLET PROTECTION CLEANOUT	0 EA
6135000000-E		GENERIC EROSION CONTROL ITEM - DISKING	0 ACR
6135000000-E		GENERIC EROSION CONTROL ITEM - RIPPING	0 ACR
6135000000-E		GENERIC EROSION CONTROL ITEM - WETLAND GRASS PLANTING	0 ACR
6132000000-E	SP	GENERIC EROSION CONTROL ITEM - PREFABRICATED CONCRETE WASHOUT	12 EA

ITS and Signals Unit Engineer's Estimate

ITEM NUMBER	SECTION	UNITS	DESCRIPTION	08-0525	08-U0524	TOTAL	Unit Cost	TOTAL COST
7048500000-E	1705	EA	PEDESTRIAN SIGNAL HEAD (16", 1 SECTION WITH COUNTDOWN)	8	8	16	\$1,500.00	\$24,000.00
7060000000-E	1705	LF	SIGNAL CABLE	3570	3355	6925	\$4.00	\$27,700.00
7120000000-E	1705	EA	VEHICLE SIGNAL HEAD (12", 3 SECTION)	14	8	22	\$1,200.00	\$26,400.00
7132000000-E	1705	EA	VEHICLE SIGNAL HEAD (12", 4 SECTION)		4	4	\$1,400.00	\$5,600.00
7144000000-E	1705	EA	VEHICLE SIGNAL HEAD (12", 5 SECTION)		2	2	\$1,700.00	\$3,400.00
7288000000-E	1715	LF	PAVED TRENCHING (2 conduits, 2 inch)	230	65	295	\$18.00	\$5,310.00
7300000000-E	1715	LF	UNPAVED TRENCHING (2 conduits, 2 inch)	690	300	990	\$18.00	\$17,820.00
7301000000-E	1715	LF	DIRECTIONAL DRILL (2 conduits, 2 inch)	350	575	925	\$36.00	\$33,300.00
7324000000-N	1716	EA	JUNCTION BOX (STANDARD SIZE)	6	9	15	\$700.00	\$10,500.00
7348000000-N	1716	EA	JUNCTION BOX (OVER-SIZED, HEAVY DUTY)	4	4	8	\$1,100.00	\$8,800.00
7444000000-E	1725	LF	INDUCTIVE LOOP SAWCUT	1500	1310	2810	\$12.00	\$33,720.00
7456000000-E	1726	LF	LEAD-IN CABLE (14-2)	4360	3010	7370	\$3.00	\$22,110.00
7588000000-N	SP	EA	METAL POLE WITH SINGLE MAST ARM	4	4	8	\$22,000.00	\$176,000.00
7613000000-N	SP	EA	SOIL TEST	4	4	8	\$1,900.00	\$15,200.00
7614100000-E	SP	CY	DRILLED PIER FOUNDATION*	22	22	44	\$2,000.00	\$88,000.00
7631000000-N	SP	EA	MAST ARM WITH METAL POLE DESIGN	4	4	8	\$1,000.00	\$8,000.00
7636000000-N	1745	EA	SIGN FOR SIGNALS	11	10	21	\$500.00	\$10,500.00
7642200000-N	1743	EA	TYPE II PEDESTAL WITH FOUNDATION	6	5	11	\$3,800.00	\$41,800.00
7684000000-N	1750	EA	SIGNAL CABINET FOUNDATION	1	1	2	\$3,000.00	\$6,000.00
7744000000-N	1751	EA	DETECTOR CARD (TYPE 170)	12	9	21	\$300.00	\$6,300.00
7696000000-N	1751	EA	CONTROLLER WITH CABINET (TYPE ******2070LX, BASE MOUNTED)	1	1	2	\$28,000.00	\$56,000.00
7901000000-N	1753	EA	CABINET BASE EXTENDER	1	1	2	\$800.00	\$1,600.00
7980000000-N	SP	EA	POWDER COAT FOR SINGLE MAST ARM WITH METAL POLE	4	4	8	\$2,600.00	\$20,800.00
7980000000-N	SP	EA	POWDER COAT FOR PEDESTAL	6	6	12	\$500.00	\$6,000.00
								\$654,860.00

The engineer's opinion of possible construction cost shown above is representative of costs we have recently seen on similar projects in North Carolina and may not represent actual bid or construction fees. Please note that we cannot control contractors' construction means and/or methods, and thus cannot accurately predict specific costs. If a more exact construction estimate is needed, please allow us to engage the services of a professional construction estimator.

Kimley » Horn

Project: East Rocky River Road - Hawk Estimate

Prepared for: Town of Davidson

By: Kimley-Horn and Associates, Inc.

Date: 1/25/2022

Opinion of Probable Construction Cost

Line Item Number	Sec. No	Units	Description	Quantity	Unit Price	Item Cost
1	1705	EA	PEDESTRIAN SIGNAL HEAD (16", 1 SECTION WITH COUNTDOWN)	2	\$ 850.00	\$ 1,700.00
2	1705	LF	SIGNAL CABLE	300	\$ 4.00	\$ 1,200.00
3	1705	EA	VEHICLE SIGNAL HEAD (12", 3 SECTION)	4	\$ 1,150.00	\$ 4,600.00
4	1715	LF	UNPAVED TRENCHING (2 conduits, 2 inch)	50	\$ 18.00	\$ 900.00
5	1715	LF	DIRECTIONAL DRILL (2 conduits, 2 inch)	50	\$ 28.00	\$ 1,400.00
6	1716	EA	JUNCTION BOX (OVER-SIZED, HEAVY DUTY)	1	\$ 550.00	\$ 550.00
7	1726	LF	LEAD-IN CABLE (14-2)	100	\$ 3.00	\$ 300.00
8	SP	EA	NEW ELECTRICAL SERVICE	1	\$ 1,450.00	\$ 1,450.00
9	SP	EA	METAL POLE WITH SINGLE MAST ARM	1	\$ 17,000.00	\$ 17,000.00
10	SP	EA	SOIL TEST	1	\$ 1,500.00	\$ 1,500.00
12	SP	CY	DRILLED PIER FOUNDATION*	5.5	\$ 1,300.00	\$ 7,150.00
13	SP	EA	MAST ARM WITH METAL POLE DESIGN	1	\$ 1,000.00	\$ 1,000.00
14	1743	EA	TYPE II PEDESTAL WITH FOUNDATION	2	\$ 2,250.00	\$ 4,500.00
15	1750	EA	SIGNAL CABINET FOUNDATION	1	\$ 2,400.00	\$ 2,400.00
16	1751	EA	CONTROLLER WITH CABINET (TYPE 2070L, BASE MOUNTED)	1	\$ 20,000.00	\$ 20,000.00
17	1751	EA	DETECTOR CARD (TYPE 2070L)	2	\$ 150.00	\$ 300.00
18	1753	EA	CABINET BASE EXTENDER	1	\$ 625.00	\$ 625.00
19	SP	EA	Mobilization	1	\$ 15,000.00	\$ 15,000.00

TOTAL: \$ 81,575.00

COMPUTED BY: AMM CHECKED BY: TGS

876

RIP RAP, CLASS A

Line	Station	Side	Description	TONS
Line	Otation	Olde	Description	10110
L	89+44 TO 91+68		ROCK EMBANKMENT	2160
L	90+95 TO 92+10		ROCK EMBANKMENT	220
	+		+	
	Tota	al		2380

COMPUTED BY: AMM CHECKED BY: KLF

CHECKED BY: KLF 876

RIP RAP, CLASS B

Line	Station	Side	Description	TONS
-Y1-	21+00	RT		25
-L-	15+35	RT		3
-L-	18+25	RT		55
-L-	38+85	RT		3
-L-	50+50	LT		40
-L-	51+00	LT		75
-L-	51+50	RT		25
-L-	52+70	RT		75
-L-	55+00	RT		135
-L-	62+50	RT		110
-L-	64+75	RT		55
-L-	66+60	RT		185
-L-	67+90	LT		35
-L-	68+90	RT		25
-L-	71+90	RT		15
-L-	75+35	LT		16
-L-	77+65	LT		25
-L-	91+50	RT		3
-L-	104+20	LT		2
-L-	112+00	LT		5
-L-	119+75	LT		55
-L-	125+67	RT		90
-L-	127+43	RT		130
-L-	130+00	RT		180
-L-	132+75	LT		3
-L-	134+15	LT		15
-L-	145+15	RT		15
-L-	147+75	RT		85
-L-	149+20	LT		5
-L-	149+20	RT		38
-L-	162+50	RT		180
-L-	167+20	LT		50
-L-	168+50	RT		140
-L-	171+25	RT		20
-L-	89+44 TO 91+68		ROCK EMBANKMENT	2160
-L-	90+95 TO 92+10		ROCK EMBANKMENT	220
-Y14-	12+60	RT		3
-Y14-	18+00	RT		135
-Y14-	26+85	LT		2
		tal		4438

COMPUTED BY: AMM CHECKED BY: KLF

: KLF 876

RIP RAP, CLASS I

Line	Station	Side	Description	TONS
-L-	25+80	RT		205
-L-	51+00	RT		15
-L-	52+10	LT		20
-L-	97+10	RT		60
-L-	98+05	RT		45
-L-	133+35	RT		55
-L-	135+50	RT		40
-L-	143+55	LT		26
-L-	164+65	LT		15
-L-	167+70	LT		33
	-	4-1		F4.4
	10	tal		514

COMPUTED BY: AMM
CHECKED BY: KLF

GEOTEXTILE FOR DRAINAGE

876

Line	Station	Side	Description	SY
-Y1-	21+00	RT	200011711011	50
-L-	15+45	RT		10
-L-	18+25	RT		140
-L-	25+80	RT		435
-L-	38+85	RT		10
-L-	50+50	LT		110
-L-	51+00	RT		30
-L-	51+00	LT		110
-L-	51+50	RT		55
-L-	52+10	LT		40
-L-	52+70	RT		150
-L-	55+00	RT		300
-L-	62+50	RT		310
-L-	64+75	RT		150
-L-	66+60	RT		525
-L-	67+90	LT		75
-L-	68+90	RT		50
-L-	71+95	RT		35
-L-	75+35	LT		30
-L-	77+65	LT		45
-L-	91+50	RT		10
-L-	97+10	RT		130
-L-	98+05	RT		100
-L-	145+15	RT		30
	Total (Th	is Sheet)		2930

COMPUTED BY: AMM CHECKED BY: KLF

876

GEOTEXTILE FOR DRAINAGE

Line	Station	Side	Description	SY
-L-	104+20	LT		7
-L-	112+00	LT		14
-L-	119+75	LT		115
-L-	125+67	RT		230
-L-	127+44	RT		335
-L-	130+00	RT		400
-L-	132+75	LT		10
-L-	133+35	RT		75
-L-	134+15	LT		30
-L-	135+50	RT		85
-L-	143+55	LT		50
-L-	147+75	RT		180
-L-	149+20	LT		14
-L-	149+20	RT		80
-L-	162+50	RT		400
-L-	164+65	LT		30
-L-	167+20	LT		80
-L-	167+70	LT		62
-L-	168+50	RT		310
-L-	171+25	RT		45
-Y14-	12+60	RT		10
-Y14-	18+00	RT		295
-Y14-	26+85	LT		7
	EROSION CON		1350	
	Total (Th	is Sheet)		4214
	Total (Al	l Sheets)		7144
	S	ΑY		7,200

COMPUTED BY: GKS

CHECKED BY: KLF 876

DRAINAGE DITCH EXCAVATION

Line	Station	Side	Description	CY
-L-	15+35	RT		10
-L-	25+55	RT		275
-L-	38+85	RT		25
-L-	72+00	RT		20
-L-	91+45	RT		70
-L-	144+50	RT		35
-L-	148+50	RT		25
-L-	150+00	RT		160
-L-	132+50	LT		65
-L-	167+25	LT		335
-L-	149+20	RT		65
-L-	51+00	LT		125
-L-	130+00	RT		195
-L-	97+50	RT		75
-L-	173+90	LT		15
-L-	135+25	RT		30
			+	
			+	
			+	
			+	
			+	
	T -	hal		4505
<u> </u>	Tot			1525
<u> </u>	SA	ΛΥ		1,530

COMPUTED BY: AMM CHECKED BY: KLF

BERM DITCH CONSTRUCTION

Line	Begin Station	End Station	Side	Description	LF
-L-	13+50	16+50	LT		300
-L-	39+07	41+00	LT		193
-L-	41+00	43+00	LT		200
-L-	53+50	56+50	RT		300
-L-	56+50	59+29	RT		279
-L-	59+29	61+00	RT		171
-L-	61+00	64+50	RT		350
-L-	68+50	73+85	LT		535
-L-	118+50	119+45	RT		95
-L-	121+00	123+00	RT		200
				+	
		Total		+	2623
		SAY			2,700
		<u> </u>			_,, 00

876

COMPUTED BY: GKS

CHECKED BY: KLF SECTION: 850

4" CONCRETE PAVED DITCH

(STD. DWG 850.10 = 11 YD^2 ; STD. DWG. 850.11 = 31 YD^2)

LINE	STATION	STATION	LOCATION	LENGTH	WIDTH	SQUARE YARDS
L	42+60.00	BDO	LT	20.00	5	11.11
L	119+50.00	BDO	RT	20.00	5	11.11
L	123+00.00	BDO	RT	20.00	5	11.11
		+				
		1	<u> </u>		TOTAL	33.33
					SAY	40

NCProject #: FA-Project#: WBS Number County:

Description:

Date of Estimate: 2/5/2025 Prepared By: R Garrett

T10	THERMOPLASTIC (4", 90 MILS) (4") YELLOW EDGELINE	1945	LF
T10	(4") YELLOW EDGELINE	5440	LF
T10	(4") YELLOW EDGELINE	445	LF
T10	(4") YELLOW EDGELINE	520	LF
T13	(4") YELLOW DOUBLE CENTER	3998	LF
T13	(4") YELLOW DOUBLE CENTER	1234	LF
T13	(4") YELLOW DOUBLE CENTER	5146	LF
T1	(4") WHITE EDGELINE	15716	LF
T1	(4") WHITE EDGELINE	3302	LF
T1	(4") WHITE EDGELINE	657	LF
T1	(4") WHITE EDGELINE	3109	LF
T1	(4") WHITE EDGELINE	150	LF
T2	WHITE SOLID LANE LINE	565	LF
T2	WHITE SOLID LANE LINE	494	LF
T2	WHITE SOLID LANE LINE	3726	LF
T2	WHITE SOLID LANE LINE	501	LF
Т3	(4") 10 FT. WHITE SKIP	2377	LF
Т3	(4") 10 FT. WHITE SKIP	62	LF
T4	(4") 3 FT 9 FT./SP WHITE MINISKIP	29	LF
T4	(4") 3 FT 9 FT./SP WHITE MINISKIP	134	LF
T4	(4") 3 FT 9 FT./SP WHITE MINISKIP	207	LF
T4	(4") 3 FT 9 FT./SP WHITE MINISKIP	1454	LF
T5	(4") 2 FT 6 FT./SP WHITE MINISKIP	103	LF
T5	(4") 2 FT 6 FT./SP WHITE MINISKIP	13	LF

04-Mar-25 Page 1 of 4

NCProject #: FA-Project#: WBS Number County: Description: Date of Estimate: 2/5/2025 Prepared By: R Garrett

		TOTAL (4", 90 MILS) 51327 LF
T.10	THERMOPLASTIC (8", 90 MILS)	
T40	(8") WHITE GORELINE	115 LF
T40	(8") WHITE GORELINE	3863 LF
T40	(8") WHITE GORELINE	1170 LF
T41	(8") WHITE DIAGONAL	699 LF
T41	(8") WHITE DIAGONAL	240 LF
T41	(8") WHITE DIAGONAL	9 LF
T42	(8") YELLOW DIAGONAL	387 LF
T42	(8") YELLOW DIAGONAL	114 LF
T42	(8") YELLOW DIAGONAL	48 LF
T45	(8") 3 FT 3 FT./SP WHITE MINISKIP (8", 90 Mil)	41 LF
T45	(8") 3 FT 3 FT./SP WHITE MINISKIP (8", 90 Mil)	41 LF
T46	(8") WHITE CROSSWALK LINE	366 LF
T46	(8") WHITE CROSSWALK LINE	695 LF
T46	(8") WHITE CROSSWALK LINE	380 LF
		TOTAL (8", 90 MILS) 8168 LF

04-Mar-25 Page 2 of 4

NCProject #: FA-Project#: WBS Number County:

Description:

Date of Estimate: 2/5/2025 Prepared By: R Garrett

T118	THERMOPLASTIC PAVEMENT FISH-HOOK W/CIRCLE LEFT/RIGHT/STI	MARKING SYMBOLS (90 MILS) RAIGHT ARROW 2	EA
T118	FISH-HOOK W/CIRCLE LEFT/RIGHT/STI	RAIGHT ARROW 2	EA
T70	LEFT TURN ARROW	6	EA
T70	LEFT TURN ARROW	2	EA
T70	LEFT TURN ARROW	3	EA
T70	LEFT TURN ARROW	46	EA
T71	RIGHT TURN ARROW	18	EA
T71	RIGHT TURN ARROW	3	EA
T71	RIGHT TURN ARROW	5	EA
T72	STRAIGHT ARROW	4	EA
T72	STRAIGHT ARROW	2	EA
T72	STRAIGHT ARROW	22	EA
T72	STRAIGHT ARROW	4	EA
T73	COMBO STRAIGHT/LEFT	2	EA
T74	COMBO.STRAIGHT/RIGHT	2	EA
T74	COMBO.STRAIGHT/RIGHT	19	EA
T74	COMBO.STRAIGHT/RIGHT	2	EA
		TOTAL PAVEMENT MARKING SYMBOLS (90 MILS) 144	EA
W10	POLYUREA (4") (30MIL) (4") YELLOW EDGELINE	700	
W3	(4") 10 FT. WHITE SKIP	720	
	(.,,	85	
		TOTAL (4") (30MIL) 805) LF

04-Mar-25 Page 3 of 4

NCProject #: FA-Project#: WBS Number County: Description: Date of Estimate: 2/5/2025 Prepared By: R Garrett

	,					
T61	THERMOPLASTIC GENERIC PAY WHITE STOPBAR (24", 90 MIL)	` ,	LF			
T61	WHITE STOPBAR (24", 90 MIL)		LF			
T61	WHITE STOPBAR (24", 90 MIL)	234	LF			
T62	WHITE CROSSWALK LINE (24", 90 MIL)	56	LF			
		TOTAL GENERIC PAVEMENT MARKING ITEM (1205) 55	8 LF			
	PERMANENT RAISED PAVEMEN	NT MARKERS				
MB -	CRYSTAL & RED , (@ 20 FT spacing)	25	EA			
MB -	CRYSTAL & RED , (@ 20 FT spacing)	346	EA			
MB - CRYSTAL & RED , (@ 80 FT spacing)						
MA -	MA - YELLOW & YELLOW , (@ 40 FT spacing) 46 EA					
MA -	MA - YELLOW & YELLOW , (@ 40 FT spacing) 15 EA					
MB -	MB - CRYSTAL & RED , (@ 20 FT spacing) 87 EA					
		TOTAL PERMANENT RAISED PAVEMENT MARKERS 65	1 EA			

4 PERMANENT RAISED PAVEMENT MARKERS (ON BRIDGE DECK) - SAY 5 EA 647 POLYCARBONATE H-SHAPED PAVEMENT MARKERS - SAY 650

YIELD LINE THERMOPLASTIC PAVEMENT MARKING, 24", 90 MILS - 70 LF

04-Mar-25 Page 4 of 4

R-5963A Erosion Control Quantity Estimate

2024 Standards and 2025 updates

365600000-E GE 600000000-E TE 6006000000-E ER 600900000-E ER 601200000-E SE 601500000-E TE 601800000-E SE 6021000000-E FE 6024000000-E TE	EOTEXTILE FOR SOIL STABILIZATION EOTEXTILE FOR DRAINAGE EMPORARY SILT FENCE ROSION CONTROL STONE, CLASS A ROSION CONTROL STONE, CLASS B EDIMENT CONTROL STONE EMPORARY MULCHING EED FOR TEMPORARY SEEDING	4600.00 2970.00 50650.00 2725.00 7900.00 6965.00	SY LF TON	
600000000-E 6006000000-E 6009000000-E 6012000000-E 6015000000-E 6018000000-E 5021000000-E 6024000000-E TE 6024000000-E TE 6029000000-E TE	EMPORARY SILT FENCE ROSION CONTROL STONE, CLASS A ROSION CONTROL STONE, CLASS B EDIMENT CONTROL STONE EMPORARY MULCHING	50650.00 2725.00 7900.00 6965.00	LF TON	
6006000000-E ER 6009000000-E ER 6012000000-E TE 6015000000-E TE 6018000000-E FE 6021000000-E TE 6024000000-E TE 6029000000-E TE	ROSION CONTROL STONE, CLASS A ROSION CONTROL STONE, CLASS B EDIMENT CONTROL STONE EMPORARY MULCHING	2725.00 7900.00 6965.00	TON	
6009000000-E ER 6012000000-E SE 6015000000-E TE 6018000000-E SE 6021000000-E FE 6024000000-E TE 6029000000-E SA	ROSION CONTROL STONE, CLASS B EDIMENT CONTROL STONE EMPORARY MULCHING	7900.00 6965.00		
6012000000-E SE 6015000000-E TE 6018000000-E SE 6021000000-E FE 6024000000-E TE 6029000000-E SA	EDIMENT CONTROL STONE EMPORARY MULCHING	6965.00	TON	
6015000000-E TE 6018000000-E SE 6021000000-E FE 6024000000-E TE 6029000000-E SA	EMPORARY MULCHING		1011	Rounded down a little to even bid amount.
6018000000-E SE 6021000000-E FE 6024000000-E TE 6029000000-E SA		F7.00	TON	
6021000000-E FE 6024000000-E TE 6029000000-E SA	EED FOR TEMPORARY SEEDING	57.00	ACR	
6024000000-E TE 6029000000-E SA		2500.00		
6029000000-E SA	ERTILIZER FOR TEMPORARY SEEDING	13.00		
	EMPORARY SLOPE DRAINS	3300.00	LF	Rounded down a little to even bid amount.
	AFETY FENCE	2720.00	LF	
6030000000-E SII	ILT EXCAVATION	38800.00	CY	Rounded up a little to even bid amount.
	IATTING FOR EROSION CONTROL:	115000.00		Matches SAY value on plan sheet EC-3B.
	OIR FIBER MAT	10100.00		Rounded up a little to even bid amount.
	4" HARDWARE CLOTH	12400.00		Rounded up a little to even bid amount.
	OW PERMEABILITY GEOTEXTILE	5200.00	SY	
	" TEMPORARY PIPE - (15")	170.00		
	" TEMPORARY PIPE - (24")	430.00		
6070000000-N SP	PECIAL STILLING BASINS	16.00	EA	
	OIR FIBER WATTLE	6570.00	LF	
	OIR FIBER WATTLE BARRIER	930.00		
	LOCCULANT	3585.00	LB	
	OIR FIBER BAFFLE	11310.00	LF	
	" SKIMMER - (1-1/2")	16.00	EA	
6071050000-E **"	" SKIMMER - (2")	11.00		
	" SKIMMER - (2-1/2")	1.00		
	EEDING AND MULCHING	51.00		
	IOWING	48.00		
	EED FOR REPAIR SEEDING	600.00		
	ERTILIZER FOR REPAIR SEEDING		TON	
	EED FOR SUPPLEMENTAL SEEDING	1150.00		
	ERTILIZER TOPDRESSING	34.25		
	/IPERVIOUS DIKE	60.00		
	PECIALIZED HAND MOWING	10.00		
	ESPONSE FOR EROSION CONTROL	125.00		
	EFORESTATION		ACR	Reduced to buffer area outside of bridge footprint.
6117500000-N CC	ONCRETE WASHOUT STRUCTURE	2.00	EA	
6132000000-N GE	ENERIC EROSION CONTROL ITEM - PREFABRICATED CONCRETE WASHOUT	12.00	EA	

RAILROAD CERTIFICATION

TIP / ID NUMBER	R-5963A	WBS ELEMENT	48599.1.2
COUNTY	Chatham	FEDERAL AID PROJECT NUMBER	N/A

In connection with the above referenced project, I certify that all necessary and applicable railroad work complies with Federal and State laws and regulations. I further certify that one of the following has application:

1.	Railroad work is complete,
2.	That all necessary arrangements have been made for applicable railroad work to be undertaken and completed as required for proper coordination with the physical construction schedule to the extent deemed necessary. There will be appropriate notification in the contract documents identifying the railroad work that is to be undertaken concurrently with project construction,
	Or
<u>X</u> 3.	No railroad conflicts.
This certificat and policies.	ion assures compliance with all applicable Federal and State laws, rules,
DATE: 1/29/20	A3C912A7820D436
	Division 8 Project Engineer

UTILITY CERTIFICATION

I. D. No. I	R-5963A	W.B.S. Element: 48599.2.	4 County: Chatham	F. A. Project No. N/A
applicable	e is in accord owing has a			•
1.	Compi	cicu,		
X2.	and cor constru approp	I necessary arrangements he impleted as required for projection schedule and, to the criate notification in the contact is to be undertaken conditional.	per coordination with the extent deemed necessary. tract documents identifying	physical There will be ing the utility
	Or			
3	3. No util	ity conflicts.		
This certif	fication assu	res compliance with all app	DocuSigned by:	e laws, rules and
			Michael Richetts	
DATE: 2 /	10/25	APPROVED	3B420DAD60B44EB	
			Division Utility Engine	er