CITY OF ALPHARETTA PUBLIC HEARING APPLICATION FOR OFFICE USE C Case #: V~24~12 PH #: PMA24001 Property Taxes & Code Violation FOR OFFICE USE C Case #: V~24~12 PH #: PMA24001 Property Taxes & Code Violation

•	Alpharetta, Ga 30009

1.	This page should be	be the first page	in each of you	r completed ap	plication packets.
•••	time page encora a				

- 2. It is preferred that all responses be typed. Illegible applications will not be accepted.
- 3. Prior to signing and submitting your application, please check all information supplied on the following pages to ensure that all responses are complete and accurate. Incomplete applications will not be accepted.
- 4. Payment of all applicable fees must be made at the time of application. Payment may be made via cash, credit card (American Express, Master Card or Visa), or check made payable to "City of Alpharetta." Please note that a 3% convenience fee will be added to all credit card transactions.
- 5. Applications will be accepted on the designated submittal dates between the hours of 8:30 AM and 3:30 PM.
- 6. If you have any questions regarding this form, please contact the Community Development Department by calling 678-297-6070.

Contact Information:

Contact Name: Carter Enginee	ering Consultants, Inc. Telepho	ne: 770-725-1200
Address: 1010 Commerce	e Drive	Suite:
city Bogart	State: GA Zip: 30622 Fax	c
Mobile Tel: 770-725-1200	Emoil: jessica@carterer	ngineering.com
Subject Property Information:		
Address: 115 Lambdin La	ine	Current Zoning: R-12
District: 1 Section: 1	Land Lot: 78/95 Parcel ID: 110	17200951037
	Desidential	
Proposed Zoning: Current U		
Proposed Zoning: Current U		
Proposed Zoning: Current U This Application For /Check All That Appl Conditional Use	Use: Residential Master Plan Amendment Com	prehensive Plan Amendment
Proposed Zoning: Current U This Application For <i>[Check All That Apple]</i> Conditional Use Rezoning	Use: Residential Master Plan Amendment Com	prehensive Plan Amendment
Proposed Zoning: Current U This Application For <i>(Check All That Apple)</i> Conditional Use Rezoning Variance	Use: Residential Master Plan Amendment Com Master Plan Review Public Hearing	prehensive Plan Amendment

NLY

APPLICANT REQUEST AND INTENT

What is the proposed use(s) of the property?

Residential

Applicant's Request (Please itemize the proposal):

Permission to perform construction activities within the state buffer zone in order to stabilize a segment of a tributary to Long Indian Creek on the Agarwal residential property

Applicant's Intent /Please describe what the proposal would facilitate J.

The property owner requests permission to perform construction activities within the state buffer zone in order to stabilize a segment of a tributary to Long Indian Creek on the Agarwal residential property. The area proposed for stabilization is experiencing scour due to high velocities of flow from the tributary as it exits the culvert under the county road Tuxford Drive during storm events. The resultant erosion threatens to undermine the foundation of the Agarwal residence if left untreated causing unnecessary hardship and would continue to contribute sediment into the Indian Creek system. Proposed Stabilization methods include the use of gabion baskets at the toe of the slope with live stakes of native tree species driven into the bank for further stability. Gabion baskets are necessary to prevent the high velocities of water from eroding the planted buffer during establishment stages and to maintain designed slopes. The proposed actions will not cause substantial detriment to the public good or impair the purpose and intent of the zoning code. The stream will retain access to its natural floodplain. Establishment of a vegetated buffer will provide ecosystem services which include habitat for aquatic and terrestrial species and shade while improving the health and stability of the stream.

PROPERTY OWNER AUTHORIZATION

 Property Owner Information:

 Contact Name:
 Sameer and Divya Agarwal
 Telephone:
 203-919-3188

 Address:
 115 Lambdin Lane
 Suite:

 City Alpharetta
 State:
 GA
 Zip:
 30022

Authorization:

I do solemnly swear and attest, subject to criminal penalties for false swearing, that I am the legal owner, as reflected in the records of Fulton County, Georgia, of the property identified below, which is the subject of the attached Application for Public Hearing before the City of Alpharetta, Georgia.

As the legal owner of record of the subject property, I hereby authorize the individual named below to act as the applicant in the pursuit of the Application for Public Hearing in request of the items indicated below.

Annexation	Special Use
Rezoning	Conditional Use
Variance	Master Plan
Land Use Application	Other

Property Owner's Authorized Applicant (if applicable):

Name of Authorized Applicant: Carter Engineering Consultants, Inc. Telephone: 770-725-1200

Address: 1010 Commerce Drive

City Bogart

State: GA

Zip: 30622

Suite:

So Sworn and Attested:

Owner Signature:

Earway

Date: 03 01

Notary:

Notary Signature:

Seven Perry NOTARY PUBLIC BARROW COUNTY, GEORGIA My Commission Expires 01/01/2028

Date: 03/01

DISCLOSURE FORM

The Official Code of Georgia Annotated requires disclosure of campaign contributions to government officials by an applicant or opponent of a rezoning or public hearing petition (O.C.G.A. 36-67 A-1).

Applicants must file this form with the City of Alpharetta Community Development Department within ten (10) days after filing for rezoning or public hearing. Opponents to a rezoning or public hearing petition must file this form five (5) days prior to the Planning Commission meeting at which the subject rezoning or public hearing petition is scheduled to be heard.

Name of Applicant or Opponent: Sameer and Divya Agarwal

Subject Public Hearing Case: 115 Lambdin Lane

Campaign Contribution Information:

Please provide the requested information for each contribution with a dollar amount or value of \$250 or more made within the past two (2) years to an Alpharetta Official by the individual identified above. Please use a separate form for each Alpharetta Official to whom such a contribution as been made.

If the individual identified above has made no such contributions to an Alpharetta Official within the past two (2) years, please indicate this by entering "N/A" on the appropriate lines below.

Name of Official:	Position:
Description of Contribution:	Value:

Campaign Contribution Information:

I do solemnly swear and attest, subject to criminal penalties for false swearing, that the information provided in this Disclosure Form is true and accurate and that I have disclosed herein any and all campaign contributions made to an Official of the City of Alpharetta, Georgia in accordance with O.C.G.A. 36-67 A-1.

13

Darway. Signature: Date: 63 104

BOARD OF ZONING APPEALS REVIEW CRITERIA

Please respond to the following ONLY if you are applying for a zoning variance.

Are there extraordinary and exceptional conditions pertaining to the subject property because of its size, shape, or topography? Please describe them.

The area proposed for stabilization is experiencing scour due to high velocities of flow from the tributary as it exits the culvert under the county road Tuxford Drive during storm events.

Would the application of the Zoning Code standards as they relate to the subject property create an unnecessary hardship? Please explain.

The resultant erosion threatens to undermine the foundation of the Agarwal residence if left untreated causing unnecessary hardship and would continue to contribute sediment into the Indian Creek system.

Are there conditions that are peculiar to the subject property? Please describe them in detail.

The area proposed for stabilization is experiencing scour due to high velocities of flow from the tributary as it exits the culvert under the county road Tuxford Drive during storm events. The resultant erosion threatens to undermine the foundation of the Agarwal residence if left untreated causing unnecessary hardship and would continue to contribute sediment into the Indian Creek system.

Would relief, if granted, cause substantial detriment to the public good or impair the purpose and intent of the Zoning Code? Please defend your response.

Proposed Stabilization methods include the use of gabion baskets at the toe of the slope with live stakes of native tree species driven into the bank for further stability. Gabion baskets are necessary to prevent the high velocities of water from eroding the planted buffer during establishment stages and to maintain designed slopes. The proposed actions will not cause substantial detriment to the public good or impair the purpose and intent of the zoning code. The stream will retain access to its natural floodplain. Establishment of a vegetated buffer will provide ecosystem services which include habitat for aquatic and terrestrial species and shade while improving the health and stability of the stream.

On a separate sheet or sheets, please provide any information or evidence that supports your request and the statements that you have provided in this application.

This form must be completed and submitted with the applicant's completed Public Hearing Application. Applications submitted to the City of Alpharetta without a completed Citizen Participation Form - Part A will not be accepted.

Public Hearing or Project Name:

115 Lambdin Lane

Contact Name: Carter Engineering Consultants, Inc.

Telephone: 770-725-1200

The following people will be notified of this application and provided information describing the subject proposal. Please note that ALL adjoining property owners MUST be notified. Use additional pages as needed.

Method by which these individuals will be contacted. Please mark all that apply. If you select "Other," please provide a description of the method of contact that will be used.

×	Letter	Personal Visits
	Telephone	Group Meeting
	Email	Other <i>Please Specify</i>

Please describe the method(s) by which these individuals will have the opportunity to respond or contact the applicant with questions or concerns about the proposal.

This form must be completed and submitted with the applicant's completed Public Hearing Application. Applications submitted to the City of Alpharetta without a completed Citizen Participation Form - Part A will not be accepted.

Public Hearing or Project Name: 115 Lambdin L	ane	
Contact Name: Carter Engineering Consulta	nts, Inc. Telephone: 770-725-1200	
The following people will be notified of this application and provide adjoining property owners MUST be notified. Use additional pages	ed information describing the subject proposal. Please note that ALL as needed.	
Kenneth and Lisa Northcutt	Michael and Michelle Mahoney	
Matthew and Melinda Urbanawiz	Bala and Kalpagam Panchapakesan	
The Atul and Sangreeta Deval Recovable Trust	Jennifer and Robert Bryan	
John and Mary Strika	Louis and Jane Ingwersen	
Matthew and Daphne Bailey	Rodney and Vicky Thompson	
Arnaud and Betty Wilson	Patrick and Jennifer Dwyer	
Cindy and Michael Jenkins	Craig and Deborah Isaacs	

Method by which these individuals will be contacted. Please mark all that apply. If you select "Other," please provide a description of the method of contact that will be used.

X	Letter	Personal Visits
	Telephone	Group Meeting
	Email	Other <i>(Please Specify)</i>

Please describe the method(s) by which these individuals will have the opportunity to respond or contact the applicant with questions or concerns about the proposal.

This form must be completed and submitted with the applicant's completed Public Hearing Application. Applications submitted to the City of Alpharetta without a completed Citizen Participation Form - Part A will not be accepted.

Public Hearing or Project Name:

115 Lambdin Lane

Contact Name: Carter Engineering Consultants, Inc. Telephone: 770-725-1200

The following people will be notified of this application and provided information describing the subject proposal. Please note that ALL adjoining property owners MUST be notified. Use additional pages as needed.

Christopher and Gina RosenAtul and Barkha SuriGarrett and Amy LeeCarl and Patricia WinnAleksandr Khislavskiy et. alKristin FreretCarolyn and Dustin DavisLarry and Joy BooneAnthony Wang and Ling LiElizabeth BeckDavid Isom and Derek ScheidtMargaret GressHeidi HendersonAndrey and Roumiana Kouinski

Method by which these individuals will be contacted. Please mark all that apply. If you select "Other," please provide a description of the method of contact that will be used.

×	Letter	Personal Visits
	Telephone	Group Meeting
	Email	Other (Please Specify)

Please describe the method(s) by which these individuals will have the opportunity to respond or contact the applicant with questions or concerns about the proposal.

This form must be completed and submitted with the applicant's completed Public Hearing Application. Applications submitted to the City of Alpharetta without a completed Citizen Participation Form - Part A will not be accepted.

115 Lambdin Lane Public Hearing or Project Name: Telephone: 770-725-1200 Carter Engineering Consultants, Inc. Contact Name: The following people will be notified of this application and provided information describing the subject proposal. Please note that ALL adjoining property owners MUST be notified. Use additional pages as needed. **Benjamin and Laura Demaline Gabriel Gotchev** Richard and Emilia Goetz Manish Vazirani and Priya Kapoor Liad Chazan and Shimon Hazot Albert and Printha Shaaya Scott and Susan Grunwald Hong Hwang and Li Ting Jason and Nancy Robinson Murray and Virginia Mann Beth and Steven Shapiro Kevin and Deana Feckoury Timothy and Crystal Leeman Stephen and Cynthia Rozier

Method by which these individuals will be contacted. Please mark all that apply. If you select "Other," please provide a description of the method of contact that will be used.

×	Letter	Personal Visits
	Telephone	Group Meeting
	Email	Other (Please Specify)

Please describe the method(s) by which these individuals will have the opportunity to respond or contact the applicant with questions or concerns about the proposal.



March 1, 2024

RE: Letter of Intent Agarwal Residence, 115 Lambdin Ln, Alpharetta, GA 30022

To whom it may concern,

Carter Engineering Consultants is writing this letter of intent to request permission to perform construction activities within the state buffer zone in order to stabilize a segment of a tributary to Long Indian Creek on the Agarwal residential property. The area proposed for stabilization is experiencing scour due to high velocities of flow from the tributary as it exits the culvert under the county road Tuxford Drive during storm events. The resultant erosion threatens to undermine the foundation of the Agarwal residence if left untreated causing unnecessary hardship and would continue to contribute sediment into the Indian Creek system. Proposed Stabilization methods include the use of gabion baskets at the toe of the slope with live stakes of native tree species driven into the bank for further stability. Gabion baskets are necessary to prevent the high velocities of water from eroding the planted buffer during establishment stages and to maintain designed slopes. The proposed actions will not cause substantial detriment to the public good or impair the purpose and intent of the zoning code. The stream will retain access to its natural floodplain. Establishment of a vegetated buffer will provide ecosystem services which include habitat for aquatic and terrestrial species and shade while improving the health and stability of the stream. Please see site photos included below:

Please feel free to contact me with any questions or concerns at brian@carterengineering.net or at 770-725-1200.

Sincerely,

L. Bus Kind

J. Brian Kimsey. P.E. Carter Engineering Consultants, Inc.

1010 Commerce Drive · Bogart, GA 30622 · (770) 725-1200



Agarwal Residence Buffer Variance Report December 2023



Picture 1: Eroded Streambank



Picture 2: Eroded Streambank



Picture 3: Sinkhole In Backyard



Picture 4: Streambank at Fence



Design Report For Agarwal Residence 115 Lambdin Ln

115 Lambdin Ln Alpharetta, GA 30022 (Parcel No. 11017200951037)

Prepared By: Carter Engineering Consultants 1010 Commerce Drive Bogart, GA 30622

February 2024



1010 Commerce Drive • Bogart, GA 30622 • (770) 725-1200

CarterEngineering.com



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Introduction

Agarwal Residence Inspection Report November 2023

Project Description

The subject site is located in Fulton County, approximately 0.8 miles west of the intersection of Jones Bridge Rd and Morton Rd, near the city of Alpharetta, GA. The site is located at 115 Lambdin lane. (See Location Map Below)



Location Map

The property is owned by Sameer and Divya Agarwal. The northwestern portion of the property borders an unnamed tributary contributing to Long Indian Creek.

Over the years, the unnamed tributary has eroded a significant portion of the property as a result of fluctuating creek levels from large storm events. This erosion has resulted in a significant amount of property loss. The erosion currently is approaching the foundation of the existing residence. The property owner is concerned that the erosion will begin to encroach closer to the foundation of the residence if left untreated.

The property owner is proposing to stabilize the streambank utilizing gabion baskets. The gabion baskets will line the original toe of the streambank. The owner will backfill the area to the gabion baskets to reclaim the area that has eroded stabilizing the upper slope with live stakes and erosion control material. The gabion baskets will prevent future streambank erosion,



ensuring the structural integrity of the residence. Due to the nature of this project, the work must be performed within the 25 feet state waters buffer. The existing and proposed conditions of the subject site are shown in the conclusion of this report.

<u>Methodology</u>

The following project analysis provides the design calculations required to compare the elevation through the stream of the original streambank and the proposed streambank at the points of study. Cross sections at two points along the section of stream being repaired were the points of study.

The study was performed using the SCS method to produce the hydrograph of the watershed. This hydrograph was routed through the channel and the elevation in the channel was recorded for the flow of 125 cfs. The elevations of the channel before and after the addition of the gabion baskets was compared to evaluate the effect.



Agarwal Residence Inspection Report November 2023

Site Pictures

The following pictures were taken at the Agarwal residence to show the condition of the streambank.



Conclusion and Recommendations

This project involves construction that, by its nature, must be located within the stream buffer. The project results in the restoration and enhancement of a section of stream that will improve water quality by eliminating streambank erosion from large storm events. Live stakes will help to reestablish a vegetative buffer along the eroded stream segment.

The placement of gabion baskets at the toe of the streambank has a minimal impact on the elevation in the channel. Thus, no adverse effects to the floodplain are expected because of the gabion baskets. The change in elevation from the gabion baskets is shown below.







During construction, the environmental impacts will be minimal. A small amount of sediment could potentially travel downstream during the placement of the gabion baskets. Once the gabion baskets and geotextile are installed, the placement of fill to reconstruct the streambank will be filtered by the barrier created by the geotextile and gabion baskets. The placement of the gabion baskets will not protrude into the original stream; therefore, flow characteristics of the stream will not be altered. Live stakes of native tree species will be placed on 3-foot centers between rows of the gabion baskets following USACE guidelines for streambank and lakeshore stabilization. This will help to reestablish a vegetative buffer on the stream bank providing stability and shade to the channel.



Figure 5: Live Stakes Detail



Agarwal Residence Inspection Report November 2023

APPENDIX

1010 Commerce Drive • Bogart, GA 30622 • (770) 725-1200 • CarterEngineering.com



1 inch = 417 feet

ENGINEERING

CITY OF ALPHARETTA FULTON COUNTY, GA

PROJECT CONSULTANTS AND CONTACT INFORMATION

OWNER / DEVELOPER SAMEER & DIVYA AGARWAL 115 LAMBDIN LANE ALPHARETTA, GA 30022 CONTACT: 203-919-3188 24-HOUR CONTACT: DIVYA AGARWAL AGARWAL.FMLY@GMAIL.COM

CIVIL ENGINEER CARTER ENGINEERING CONSULTANTS, INC. 1010 COMMERCE DRIVE BOGART, GA 30622 CONTACT: 770.725.1204 BRIAN KIMSEY BRIAN@CARTERENGINEERING.COM

STREAMBANK STABILIZATION PLANS FOR AGARWAL RESIDENCE

SURVEYOR

CARTER ENGINEERING CONSULTANTS, INC 1010 COMMERCE DRIVE BOGART, GA 30622 CONTACT: 770.725.1200 MICHAEL FOLEY, GA #3346

CITY OF ALPHARETTA NOTES

- 1. NARRATIVE: THE PURPOSE OF THIS PROJECT IS TO STABILIZE THE STREAMBANK AT A
- RESIDENTIAL LOT. 2. PERCENT IMPERVIOUS OF PROJECT AREA: 37%
- THIS PROJECT IS LOCATED WITHIN FEMA FIRM NUMBER 13121C0086F DATED 09/18/2013. THE SHADED ZONE X REFLECTS AREAS OF 1% ANNUAL CHANCE FLOOD WITH DRAINAGE AREA LESS THAN 1 SQUARE MILE.
- SURVEY COMPLETED BY CARTER ENGINEERING CONSULTANTS IN 9/2023.
- THERE ARE NO FLOODPLAINS LOCATED ON THE PROJECT SITE

UTILITY CONTACTS				
NAME	NAME PROVIDER PHONE NUMBER			
SEWER FULTON COUNTY (404) 612-3061				
WATER FULTON COUNTY		(770) 640-3040		
ELECTRICAL GEORGIA POWER (888) 891-0938				
INTERNET / TELEPHONE	UNKNOWN	UNKNOWN		



DESIGN BENCHMARK 50% DD OWNER REVIEW DRAWING STATUS NOT FOR CONSTRUCTION

ENGINEERING

DCARTER

PROJECT LOCATION

115 LAMBDIN LANE ALPHARETTA, GA 30022

CONSTRUCTION ENTRANCE

34.22978 NORTH -84.142773 WEST

PARCEL ID NUMBER

11017200951037

PROJECT TRACT 0.2837 ACRES DISTURBED AREA 0.1 ACRES



SITE LOCATION MAP NOT TO SCALE



HEET NUMBER	SHEET TITLE
C. 1.0	COVER SHEFT
C 2 0	GENERAL NOTES
C 3 0	EXISTING SITE PLAN
C 4 0	PROPOSED SITE PLAN
C 4 1	CROSS SECTION PROFILES
C 4 2	
C 4 3	
C 5 0	E&SC NOTES
C 5 1	ERSC PLAN
C 5 2	E&SC DETAILS
C 6 0	
REVISION NUMBER	EVISION BLOCK
ISSUE 1	11.08.23 - INITIAL SUBMITTAL
ISSUE 2	2.29.24
ISSUE 6	
ISSUE 7	
ISSUE 8	
ISSUE 9	
ISSUE 10	

INC. AND IS TO BE RETAINED IN CONFIDENCE. WITHOUT WRITTEN PERMISSION OF AN OFFICER OF CARTER ENGINEERING ONSULTANTS, INC. THIS PLAN IS NOT TO BE DUPLICATED, SENT, SHOWN OR USED FOR ANY OTHER PURPOSE THAN TO DISCLOSE TO THE RECIPIENT A DESIGN CONCEPT SPECIFIC TO THE PROJECT SHOWN HEREIN. THIS PLAN SET, INCLUDING ALL RD COPIES AND ELECTRONIC FILES, IS TO BE RETURNED TO CARTER ENGINEERING CONSULTANTS, INC. UPON DEMAND

GENERAL PLAN SET NOTES

THE ENGINEER IS NOT RESPONSIBLE FOR COST CHANGES DURING CONCEPTUAL, PRELIMINARY, OR DESIGN PHASE. BIDS & QUOTES SHALL BE BASED ON PLAN SETS LABELED "ISSUE FOR BID" ON THE REVISION BLOCK. BIDS & QUOTES SHALL BE REVISED BASED ON PLANS LABELED "ISSUE FOR CONSTRUCTION" ON THE REVISION BLOCK.

- IF DISCREPANCIES ARE ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE DEVIATION FROM THIS PLAN SET, THE ENGINEER SHOULD BE NOTIFIED FOR UPDATED PLANS AND/ OR FIELD CHANGES
- THE ENGINEER IS NOT RESPONSIBLE FOR DESIGN OR CONSTRUCTION COST ASSOCIATED WITH FIELD CHANGES OR DEVIATION FROM THIS PLAN SET DUE TO UNFORESEEN SITE CONDITIONS, CLIENT MODIFICATION REQUEST AND/ OR CONTRACTOR CHANGES.
- THE ENGINEER IS NOT RESPONSIBLE FOR THE EFFICACY OF FIELD CHANGES OR DEVIATION FROM THIS PLAN SET IN ANYWAY, UNLESS CHANGES ARE DIRECTED BY THE ENGINEER
- ß C Ζ CARTER ENGINEERING 3651 MARS HILL ROAD **SUITE 2000** WATKINSVILLE, GA 30677 P: 770.725.1200 F: 770.725.1204 www.carterengineering.con NO. 26703 PROFESSIONAL GSWCC Level II Certification No. 00000003007 NS ЩΩ Ú m Z Ш∢ OPMENT R Ш \ge Z \mathbf{r} ĹШ \square צ ט 15 A Ш S SHEET TITLE: COVER SHEET NUMBER: C 1.0

1

PROJECT NUMBER:

23001SDA

2/29/24

C

Z

- 1. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER A COMPLETE PROJECT, READY TO USE, AND ALL ITEMS NECESSARY FOR A COMPLETE AND WORKABLE JOB SHALL BE FURNISHED AND INSTALLED. ANY DISCREPANCY SHALL BE IMMEDIATELY REPORTED TO THE OWNER OR HIS REPRESENTATIVE
- NOTIFY THE INSPECTOR OF THE LOCAL GOVERNING AUTHORITY 24 HOURS BEFORE EVERY PHASE OF CONSTRUCTION
- ALL WORK SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES. ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR, AT HIS EXPENSE, UNLESS ALREADY OBTAINED BY THE OWNER.
- THE CONTRACTOR SHALL COORDINATE LOCATION AND INSTALLATION OF ALL UNDERGROUND UTILITIES AND APPURTENANCES TO MINIMIZE DISTURBING CURBING, PAVING, AND ALL OTHER UTILITIES.
- THE EXISTING UTILITIES SHOWN ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE DRAWINGS. THE UTILITIES SHOWN ARE THOSE LOCATED BY THE SURVEYOR OF RECORD. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATION OF THE UTILITIES SHOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR CONSENT OF THE ENGINEER AND THE MUNICIPALITY MAY CAUSE FOR THE WORK TO BE UNACCEPTABLE.
- 7. ALL MATERIALS SHALL BE NEW UNLESS USED OR SALVAGED MATERIALS ARE AUTHORIZED BY THE 8 THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES AROUND THE WORK
- AND SHALL PROVIDE PROTECTION AGAINST WATER DAMAGE AND SOIL EROSION.
- ALL WORK SHALL BE PERFORMED IN A FINISHED AND WORKMANLIKE MANNER TO THE ENTIRE SATISFACTION OF THE OWNER, AND IN ACCORDANCE WITH THE BEST RECOGNIZED TRADE PRACTICES. THE CONTRACTOR SHALL PROVIDE SHEETING AND SHORING FOR ALL TRENCH CONSTRUCTION IN
- ACCORDANCE WITH OSHA GUIDELINES. 11. ALL PIPE LENGTHS SHOWN ARE TO THE CENTERLINE OF THE STRUCTURES UNLESS SPECIFICALLY NOTED.
- 12. PIPES (STORM AND SANITARY SEWER) SHALL BE LAID ON SMOOTH, CONTINUOUS GRADES WITH NO VISIBLE BENDS AT THE JOINTS
- BEDDING REQUIREMENTS SPECIFIED HEREIN ARE TO BE CONSIDERED AS MINIMUM REQUIRED FOR RELATIVELY DRY STABLE EARTH CONDITIONS. ADDITIONAL BEDDING SHALL BE REQUIRED FOR ROCK TRENCHES TO PROVIDE SUCH ADDITIONAL BEDDING AS REQUIRED TO PROPERLY CONSTRUCT WORK.

- EXISTING ELEVATIONS PRIOR TO CONSTRUCTION. 17. CONCRETE CURBS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS SHOWN ON PLANS.
- MATERIALS, EQUIPMENT, METHODS OF CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO STATE D.O.T. STANDARD SPECIFICATIONS.
- 18. ALL CONCRETE SHALL HAVE 3000 PSI COMPRESSIVE STRENGTH AFTER 28 DAYS, WITH A MAXIMUM SLUMP OF FOUR (4) INCHES, UNLESS SPECIFIED OTHERWISE.
- 19. ALL EXPOSED CONCRETE SHALL HAVE A FINE HAIR BROOMED FINISH.
- . PARKING AND DRIVEWAY BASE COURSE AND ASPHALTIC CONCRETE SURFACE AND PRIME MATERIALS, EQUIPMENT, METHODS FOR CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO STATE D.O.T. STANDARD SPECIFICATIONS
- 21. CONTRACTOR TO FIELD VERIFY ALL STORM, SANITARY, WATER AND OTHER UTILITIES LOCATIONS AND INVERTS PRIOR TO INSTALLATION OF ANY UTILITIES. NOTIFY ENGINEER PRIOR TO PROCEEDING WITH ANY WORK IF DISCREPANCIES FOUND.
- 22. THE USE OF CONCRETE THRUST BLOCKS FOR THE INSTALLATION OF WATER MAINS IS STRICTLY PROHIBITED. PRESSURE PIPE FITTINGS AND OTHER ITEMS REQUIRING RESTRAINT SHALL BE RESTRAINED USING METHODS SPECIFIED AND APPROVED BY COUNTY/CITY TECHNICAL STANDARDS, SPECIFICATIONS AND REGULATIONS. THE PREFERRED METHOD OF RESTRAINT IS THROUGH THE USE OF "MEGA-LUGS" OR "MJR" DEVICES.
- 23. ALL DIMENSIONS ARE MEASURED TO THE BACK OF CURB UNLESS OTHERWISE NOTED.

EARTHWORK SPECIFICATIONS

- CLEARING AND GRUBBING
- CLEARING AND GRUBBING SHALL CONSIST OF CLEARING THE SURFACE OF THE GROUND OF THE DESIGNATED AREAS OF ALL TREES, LOGS, SNAGS, BRUSH, UNDERGROWTH, HEAVY GROWTH OF GRASS WEEDS. FENCE STRUCTURES, DEBRIS AND RUBBISH OF ANY NATURE, NATURAL OBSTRUCTIONS SUCH AS OBJECTIONABLE SOIL MATERIAL UNSATISFACTORY FOR FOUNDATIONS. IT SHALL ALSO CONSIST OF GRUBBING OF STUMPS, ROOTS FOUNDATIONS AND DISPOSAL OF ALL SUCH MATERIAL. ALL HOLES REMAINING AFTER THE GRUBBING OPERATION IN EMBANKMENT AREAS AND IN EXCAVATION AREAS LESS THAN TWO (2) FEET IN DEPTH, SHALL HAVE SIDES BROKEN DOWN AND LEVELED IF NECESSARY TO FLATTEN OUT SLOPES. REFILLED WITH ACCEPTABLE MATERIAL THAT IS PROPERLY COMPACTED IN LAYERS BY TAMPERS, ROLLERS OR CONSTRUCTION EQUIPMENT.
- BURNING ON SITE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE LOCAL GOVERNING AUTHORITIES HAVING JURISDICTION.
- EXISTING TREES OUTSIDE OF GRADING LIMITS LINE:
- TREES AND VEGETATION TO BE SAVED SHALL BE PROTECTED FROM DAMAGE BY A FENCE BARRICADE PRIOR TO, OR DURING, CLEARING OPERATIONS. TREES TO BE REMOVED FROM THE AREA OUTSIDE THE LIMITS OF GRADING OR FROM SPECIFICALLY DESIGNATED AREAS WITHIN THE CONSTRUCTION AREAS. IF, IN THE OPINION OF THE ENGINEER, A CONTRACTOR DAMAGES A TREE NOT TO BE REMOVED. THE CONTRACTOR WILL BE FINED A PREDETERMINED AMOUNT FOR EACH DAMAGED TREE. THE CONTRACT SHALL ALSO BE RESPONSIBLE FOR ALL COSTS ASSOCIATED IN REMOVING THE DAMAGED TREE FROM THE SITE.
- FILL:
- ALL VEGETATION SUCH AS ROOTS, BRUSH, HEAVY GROWTH OF GRASS, TOPSOIL, ALL DECAYED VEGETABLE MATTER, RUBBISH, AND OTHER UNSUITABLE MATERIAL WITHIN THE AREA UPON WHICH FILL IS TO BE PLACED SHALL BE STRIPPED OR BE OTHERWISE REMOVED BEFORE THE FILL OPERATION IS STARTED. IN NO CASE SHALL UNSUITABLE MATERIAL REMAIN IN OR UNDER THE FILL AREA. SLOPED GROUND SURFACE STEEPER THAN ON VERTICAL TO FOUR HORIZONTAL, ON WHICH FILL IS TO BE PLACED, SHALL BE PLACED, STEPPED OR BENCHED IN SUCH A MANNER THAT THE FILL TO BE PLACED SHALL BE 97 PERCENT OF THE MAXIMUM LABORATORY DRY DENSITY ACCORDING TO STANDARD PROCTOR (AASHTO T99, ASTM D-698), MOISTURE CONTENT SHALL BE WITHIN 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT. PROOF ROLL THE AREAS TO BE FILLED OR ON WHICH STRUCTURES ARE TO BE PLACED. A LOADED DUMP TRUCK OR OTHER RUBBER TIRED EQUIPMENT SHALL BE USED FOR PROOF ROLLING. OVERLAPPING PASSES OF A VEHICLES SHOULD BE MADE ACROSS THE SITE IN ONE DIRECTION AND THEN PERPENDICULAR TO THE ORIGINAL DIRECTION OF ROLLING.
- 2. ANY YIELDING, PUMPING OR SOFT AREAS SHOULD BE CUT OUT AND REPLACED WITH FILL COMPACTED AS DESCRIBED HEREIN.
- THE PROPOSED FILL SHOULD BE LIMITED TO SOILS CLASSIFIED IN ACCORDANCE WITH ASTM D-2487 AS GM, GC, SW, SM, SC, ML AND CL. SOIL CLASSIFIED AS PT, OH, OL, CH AND MH ARE NOT SATISFACTORY AS COMPACTED FILL
- 4. FILLS AND EMBANKMENTS SHALL BE CONSTRUCTED AT THE LACTATIONS AND TO THE LINES AND GRADES INDICATED ON CONSTRUCTION PLANS. THE SLOPE SHALL NOT EXCEED 2 FOOT HORIZONTAL TO 1 FOOT VERTICAL (3 FOOT HORIZONTAL TO 1 FOOT VERTICAL IN THE PUBLIC RIGHT OF WAY). THE COMPLETED FILL SHALL CORRESPOND TO THE SHAPE OF THE TYPICAL SECTIONS INDICATED ON THE CONSTRUCTION PLANS. MATERIAL REMOVED FROM THE EXCAVATION SHALL BE USED IN FORMING THE FILL. FILL MATERIAL SHALL BE REASONABLY FREE FROM ROOTS, OTHER ORGANIC MATERIAL, TRASH AND STONES HAVING MAXIMUM DIMENSIONS GREATER THAN 6 INCHES (4 INCHES IN TRENCHES FOR UTILITIES). NO FROZEN MATERIAL WILL BE PERMITTED IN THE FILL. STONES HAVING A MAXIMUM DIMENSION OF 4 INCHES WILL NOT BE PERMITTED IN THE UPPER SIX INCHES OF FILL OR EMBANKMENT OR UTILITY TRENCH. THE MATERIAL SHALL BE PLACED IN SUCCESSIVE HORIZONTAL LAYERS NOT MORE THAN 8 INCHES THICK. UNLESS OTHERWISE NOTED. IN LOOSE DEPTH FOR THE WIDTH OF THE CROSS-SECTION AND SHALL BE COMPACTED TO AT LEAST 97 PERCENT OF THE MAXIMUM LABORATORY DRY DENSITY ACCORDING TO STANDARD PROCTOR (ASTM D-698, AASHTO T-99). MOISTURE SHALL BE WITHIN 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT. THE TOP 12 INCHES OF THE PAVING, PARKING AND/OR ROADWAY SUB-GRADE SHALL BE COMPACTED TO 97 PERCENT OF THE MAXIMUM DRY DENSITY (STANDARD PROCTOR). EACH LIFT SHALL BE ROLLED WITH A VIBRATORY ROLLER, A SHEEPSFOOT ROLLER, OR A LOADED RUBBER TIRED DUMP TRUCK, SCRAPER OR LOADER. IF THE SOIL IS TOO DRY, A WATER TRUCK WITH SPREADER BAR OR SPRAY HOSE SHALL BE USED TO BRING THE SOIL TO THE PROPER MOISTURE RANGE. THE WATER SHALL BE THOROUGHLY AND PROPERLY MIXED WITH THE SOIL PRIOR TO COMPACTION
- STORM DRAIN PIPES SHALL BE PLACED ON FIRM BOTTOM AND HAND TAMPED TO SAFE UP THE PIPE. A CUSHION OF SOIL SHALL BE TAMPED ABOVE THE CROWN OF THE PIPE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS SO THAT THE HEAVIER COMPACTION EQUIPMENT CAN THEN BE USED TO BRING THE SOIL TO A DENSITY AS DESCRIBED ABOVE FOR FILL AREAS.
- . IF SOILS INVESTIGATION REPORT IS PROVIDED, THEN FOLLOW THE RECOMMENDATIONS OF THE REPORT IF THEY EXCEED THE RECOMMENDATIONS OF THESE SPECIFICATIONS. TOPSOIL
- UNLESS OTHERWISE SPECIFIED, AREAS DESIGNATED FOR GRADING OPERATIONS THAT CONTAIN A BLANKET OF TOPSOIL SHALL BE STRIPPED AND PLACED IN CONVENIENT STOCKPILES FOR LATER USE AS A TOPSOIL BLANKET ON THE NEW GRADED AREAS SPECIFIED HEREIN, OR AS DESIGNATED, TOPSOIL SHALL BE STRIPPED FROM ALL AREAS DESIGNATED TO RECEIVE FILL. THE STRIPPING OF MATERIAL FOR TOPSOIL SHALL BE CAREFULLY DETERMINED AND ONLY THE QUANTITY REQUIRED SHALL BE STOCKPILED. MATERIAL STOCKPILED SHALL BE STORED IN A SATISFACTORY MANNER TO AFFORD PROPER DRAINAGE. WHEN GRADING OPERATIONS PERMIT, INSTEAD OF STOCKPILING, THE TOPSOIL SHALL BE HAULED AND SPREAD DIRECTLY ON THE AREAS DESIGNATED TO RECEIVE TOPSOIL.
- ROCK EXCAVATION:
- 1. IF ROCK IS ENCOUNTERED, CLEAR AWAY EARTH TO EXPOSE MATERIAL. NOTIFY OWNER AND RECEIVE WRITTEN INSTRUCTIONS PRIOR TO EXCAVATION, REMOVE ROCK TO A DEPTH OF 6 INCHES BELOW AND 8 INCHES ON EACH SIDE OF PIPES IN TRENCHES. A MEASUREMENT OF EXTENT OF ROCK TO BE REMOVED SHALL BE MADE. ROCK EXCAVATION SHALL BE PAID FOR IN ACCORDANCE WITH AGREEMENT WITH THE OWNER.

DEMOLITION NOTES

- EXISTING STRUCTURES & FACILITIES:
- 1. THE LOCATIONS OF ALL EXISTING FACILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINI BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACT ENGINEER / LANDSCAPE ARCHITECT ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. F START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPA ON-SITE LOCATIONS OF EXISTING UTILITIES.
- 2. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, SUPERVISION AND EQUIPMENT FOR THE ORDERLY DEMOLITION AND REMOVAL OF EXISTING STRUCTURES, PAVEMENT, AND SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.
- 3. THE CONTRACTOR IS REQUIRED TO FAMILIARIZE HIM/HERSELF WITH THE STRUCTURES TO BE DEMOLISHED, A BRIEF DESCRIPTION OF THE STRUCTURES PROPOSED TO BE INSTALLED AND DEMOLISHED ARE INCLUDED FOR THE CONTRACTOR'S CONVENIENCE ONLY.
- 4. THE FOLLOWING LIST OF STRUCTURES REQUIRING DEMOLITION IS INCLUDED FOR THE CON CONVENIENCE ONLY. THE DRAWINGS INDICATE THE SCOPE OF THE DEMOLITION WHERE DI REQUIRED (SEE CORRESPONDING PLANS):
- 4.1. DEMOLITION AND REMOVAL OF EXISTING ON-SITE ASPHALT, CONCRETE, PAVING, AND LIMITS OF DISTURBANCE/DEMOLITION AS SHOWN ON THE CORRESPONDING PLANS. CO TO VERIFY AND COORDINATE ANY DISCREPANCIES AND/OR CONCERNS WITH ENGINEER/LANDSCAPE ARCHITECT ACCORDINGLY.
- 5. ALL ON-SITE UNDERGROUND STRUCTURES AND PIPING MUST BE COMPLETELY REMOVED A OVER-EXCAVATED BY A MINIMUM OF 12" BENEATH THE STRUCTURES. CONTRACTOR SHALL APPROVED FILLING MATERIAL FOR FILLING THESE AREAS. FILL SHALL BE CLEAN WITH LESS T PASSING THE #200 SIEVE, PLASTICITY INDEX LESS THAN 10, WITH MAXIMUM PARTICLE SIZE C INCHES, AND SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8 INCHES IN THICKNESS AI COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (AASH
- 6. ALL EXISTING STRUCTURES, PAVEMENTS, SLABS, FOUNDATIONS, STEPS AND OTHER EXISTING INDICATED ON THE DRAWINGS TO BE REMOVED SHALL BE DEMOLISHED AND REMOVED BY CONTRACTOR. REMOVE NO STRUCTURE SUBSTANTIALLY AS A WHOLE. DEMOLISH COMPLET
- 7. ALL EXISTING SEWERS, PIPING, UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXAC OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. CONTRACTOR SHALL VERIFY CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. CONTR SHALL GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.
- 8. CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION FOR PERSON AND PROPERTY AT ALI OR SHE SHALL EXECUTE THE WORK IN A MANNER THAT AVOIDS HAZARDS TO PERSONS AND AND THAT PREVENTS INTERFERENCE WITH THE USE AND ACCESS TO ADJACENT PROPERTIE AND ADJACENT STREETS. STREETS AND SIDEWALKS SHALL NOT BE BLOCKED BY DEBRIS AN FOUIPMENT
- 9. CONTRACTOR MUST STOP OPERATION AND NOTIFY THE OWNER FOR PROPER DIRECTION IF ENVIRONMENTAL OR HEALTH RELATED CONTAMINATE IS ENCOUNTERED DURING THE DEM AND/OR EXCAVATION PROCESS.
- DISPOSAL:
- 10. REMOVE AND LEGALLY DISPOSE OF ALL OTHER RUBBISH, RUBBLE, AND DEBRIS. ALL REFUSE MISCELLANEOUS ITEMS TO BE REMOVED, THAT ARE NOT TO BE STOCKPILED FOR LATER US PROJECT OR DELIVERED TO THE OWNER. SHALL BE LEGALLY DIPOSED OF OFF-SITE BY THE C IN ACCORDANCE WITH ANY AND ALL APPLICABLE LAWS, STANDARDS, AND REGULATIONS S LOCAL, STATE, AND FEDERAL OFFICIALS THAT GOVERN THE DISPOSAL OF WASTE AND DEBR
- PAVEMENT REMOVAL:
- 11. WHERE EXISTING PAVEMENT IS TO BE REMOVED, CONTRACTOR SHALL SAW-CUT THE SURFA LEAVING A UNIFORM AND STRAIGHT EDGE WITH THE MINIMAL DISTURBANCE POSSIBLE TO REMAINING ADJACENT SURFACING. IF CONSTRUCTION RESULTS IN RAVELING OF THE SAW SURFACE, RECUT BACK FROM THE RAVELED EDGE PRIOR TO RESTORATION.
- 12. WHERE EXISTING PAVEMENT, CURB, CURB AND GUTTER, SIDEWALK, DRIVEWAY OR VALLEY G BE REMOVED FOR THE PURPOSE OF CONSTRUCTION OR REMOVING BOX CULVERTS, PIPE, IN MANHOLES, APPURTENANCES, FACILITIES OR STRUCTURES, SAID PAVEMENT, ETC., THE SAIL PROPOSED STRUCTURE SHALL BE REPLACED AND RESTORED IN EQUAL OR BETTER CONDITION ORIGINAL. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, MATERIALS, EQUIPME SUPPLIES, AND ANY OTHER NECESSARY EQUIPMENT AS REQUIRED BY PROJECT AND SITE REC
- ACCESS:
- 13. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR THE SURROUNDING PROPERTIES AT ALL DURING THE DEMOLITION PROCESS OF THE EXISTING FACILITIES AND SITE.

PERMITTING:

- 14. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY REQUIRED PERMITTING FOR DEM WITH ALL REQUIREMENTS PRIOR TO COMMENCING OF DEMOTION WORK.
- 15. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE EXTENT OF DEMOLITION IN ORDER TO PERFORM THE CONTRACT WORK FOR THIS PROJECT. THE CONTRACTOR SHAL SITE VISITS AND SHALL EXAMINE ALL OF THE INFORMATION WITHIN THESE DOCUMENTS AN DISCREPANCIES AND/OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LEAD ENGINEER/ARCHITECT PRIOR TO BID SUBMITTAL.
- 16. CONTRACTOR SHALL LIMIT ALL DEMOLITION ACTIVITY TO THAT AREA DELINEATED IN THE DI APPROVED BY OFFICIALS.
- 17. ALL OTHER EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO STORM DRAINAGE, GAS, ELECTRIC, TELEPHONE, AND WATER & SEWER SHALL BE PRESERVED AND PROTECTED AT ALL TIMES AS NEEDED AND AS REQUIRED.

STAKING AND SURVEYING NOTES

- STAKING:
- 1. THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION STAKING AND CONSTRUCTION ACTIVITIES BASED ON THE LATEST APPROVED DESIGN PLANS AND/OR DESIGN FILE(S) AS PROVIDED AND AS WARRANTED BY CLIENT AND PROJECT NEEDS.
- 2. PRIOR TO COMMENCING CONSTRUCTION STAKING OR CONSTRUCTION ACTIVITIES, THE CONTRACTOR AND/OR STAKING SURVEYOR SHALL CONFIRM WITH THE PROJECT LEAD ENGINEER/ARCHITECT, WHO'S RESPONSIBLE FOR THIS PROJECT, THAT THE LATEST PLANS AND/OR DESIGN FILE(S) ARE BEING UTILIZED.
- 3. THE ENGINEER/LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR OWNERS, CONTRACTORS OR SURVEYORS STAKING OR PERFORMING CONSTRUCTION ACTIVITIES BASED ON OUT-OF-DATE DESIGN PLANS AND/OR DESIGN FILES.
- 4. CONSTRUCTION STAKING SHALL ADHERE TO THE HORIZONTAL AND VERTICAL DATUM LISTED IN THIS CONSTRUCTION SET AND AS PROVIDED IN THE CORRESPONDING FILES, NOTES, AND/OR DRAWINGS.

TOLERANCES & DISCREPANCIES:

- 5. IF, DURING CONSTRUCTION STAKING OR CONSTRUCTION ACTIVITIES, SURVEY DISCREPANCIES ARE ENCOUNTERED WITH REGARD TO THE DESIGN PLANS OR DESIGN FILE, WORK SHOULD CEASE AND THE LEAD ENGINEER/LANDSCAPE ARCHITECT SHOULD BE NOTIFIED IMMEDIATELY TO RESOLVE THE ISSUE OR ISSUES. THE ENGINEER / LANDSCAPE ARCHITECT CAN NOT BE HELD RESPONSIBLE OR LIABLE FOR ISSUES THAT THEY HAVE NOT RECEIVED NOTIFICATION.
- 6. THE CONSTRUCTION TOLERANCES SHOWN IN THE CORRESPONDING DRAWINGS, NOTES, AND/OR FILES, IN GENERAL, REPRESENT INDUSTRY STANDARDS. HOWEVER, EXCEPTIONS CAN BE MADE IF IT DETERMINED THAT CERTAIN DEVIATED CONSTRUCTION ACTIVITIES DO NOT ADVERSELY AFFECT THE DESIGN REQUIREMENTS OR FUNCTIONALITY. THE LEAD ENGINEER/LANDSCAPE ARCHITECT WILL EVALUATE CONSTRUCTION ACTIVITIES THAT DEVIATE FROM THE DESIGN PLANS ON A CASE-BY-CASE BASIS. IF IT IS DETERMINED THAT THE CERTAIN DEVIATED CONSTRUCTION ACTIVITIES DO ADVERSELY AFFECT THE DESIGN REQUIREMENTS, FUNCTIONALITY, AND INTENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING OR REPAIRING ALL ITEMS TO THE PLANS AND SPECIFICATIONS AS DETERMINED AND REQUIRED BY DESIGN PROFESSIONAL, AT THE CONTRACTOR'S EXPENSE.

CIVIL ENGINEERING DESIGN TOLERANCES FOR PROJECT:

GENERAL GRADING:	±0.10 FEET	RETAINING WALLS:
ALL PIPE/CONDUITS:	±0.05 FEET	SITE FEATURES (SPO
DRAINAGE STRUCTURES:	±0.05 FEET	UTILITY ELEVATION
SANITARY SEWER STRUCTURES:	±0.05 FEET	EROSION CONTRO
STORMWATER POND FEATURES:	±0.05 FEET	

AS-BUILT & SPECIFICATIONS:

- 7. THE ENGINEER/LANDSCAPE ARCHITECT SHOULD BE PROVIDED WITH AN AS-BUILT SURVEY OF THE PROJECT FOR REVIEW AND APPROVAL AFTER THE PROJECT IS COMPLETE. CONTRACTOR IS RESPONSIBLE FOR COORDINATING EFFORTS WITH DESIGN PROFESSIONAL
- 8. SEE THE PROJECT SPECIFICATIONS FOR ADDITIONAL SITE SPECIFIC REQUIREMENTS REGARDING CONSTRUCTION, MATERIALS, TESTING, AND CERTIFICATIONS.

- 14. ALL STORM DRAINAGE INLET STRUCTURES SHALL HAVE METAL RING AND COVER FOR ACCESS.
- 15. ALL ANGLES SHOWN ARE 90 DEGREES UNLESS SHOWN OTHERWISE.

16. ALL GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL VERIFY DIMENSIONS, GRADES, AND

	PROJECT GEOGRAPHICAL INFORMATION
	PROJECT PROJECTION & DATUM:
ED FROM THE TOR. THE PRIOR TO THE	HORIZONTAL DATUM: NAD83 GEORGIA STATE PLANES, WEST ZONE, US FOOT VERTICAL DATUM: NORTH AMERICAL VERTICAL DATUM OF 1988 (NAVD88)
ANIES FOR	BOUNDARY SURVEY:
REQUIRED D UTILITIES AS	SURVEYOR NAME:MICHAEL FOLEY, GA RLS #3346DATE OF SURVEY:2023TRACT OR RADCEL:11047200061027
E D	HORIZONTAL DATUM: NAD83 GEORGIA STATE PLANES, WEST ZONE, US FOOT VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD88)
TRACTOR'S EMOLITION IS	TOPOGRAPHIC SURVEY:
	SURVEYOR NAME: MICHAEL FOLEY, GA #3346 DATE OF SURVEY: 2023
CURBING TO ONTRACTOR	TRACT OR PARCEL:11017200951037HORIZONTAL DATUM:NAD83 GEORGIA STATE PLANES, WEST ZONE, US FOOTVERTICAL DATUM:NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
ND USE	GEOGRAPHICAL INFORMATION SYSTEMS (GIS) DATA UTILIZED:
HAN 50% DF 1.25 ND	TOPOGRAPHIC DATA:USGS LIDAR DATASETPARCEL DATA:11017200951037
ITO T99). IG FEATURES	GEORGIA COMP. R. & REGS. R. 180-609:
THE FELY ON THE	THE TOPOGRAPHIC AND ELEVATION DATA SHOWN HEREON WAS OBTAINED FROM SURVEYOR & USGS LIDAR AND IS NOT CERTIFIED AS CORRECT BY THIS ENGINEER. USERS OF THIS DATA DO SO AT THEIR OWN RISK.
CT LOCATION, EXISTING	SEQUENCE& INSPECTION NOTES
OF ALL	CONSTRUCTION SEQUENCE:
LL TIMES. HE D PROPERTY S, BUILDINGS,	1. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF THE STRUCTURAL FILL MATERIAL REQUIRED FOR THIS PROJECT. THE GEOTECHNICAL EOR SHALL PERFORM STANDARD PROCTORS TESTS AND CLASSIFICATION OF THE FILL MATERIAL TO ENSURE MATERIAL MEETS THE EARTHWORK SPECIFICATIONS.
D F ANY IOLITION	2. CONTRACTOR SHALL INSTALL ALL INITIAL BMPs (Sd1-S, Rd, Sd1-BB) PER THE EROSION AND SEDIMENT CONTROL PLAN. THE CONTRACTOR SHALL MAINTAIN ALL BMPs THROUGHOUT CONSTRUCTION. ADDITIONAL BMPs MAY BE REQUIRED TO PREVENT SEDIMENT MIGRATION FROM DAM SITE AND BORROW AREA(S). ULTIMATELY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE NO SEDIMENT LEAVES THE PROJECT SITE DURING AND AFTER CONSTRUCTION.
	 ALL UTILITIES SHALL BE CLEARLY MARKED AND IDENTIFIED. POTHOLE TO DETERMINE DEPTHS IS REQUIRED PRIOR TO COMMENCING ANY WORK.
AND	 CLEAR AND GRUB ALL TREES AND VEGETATION WITHIN THE CLEARING LIMITS PER DEMO PLAN AND SPECIFICATIONS.
E ON THE CONTRACTOR	5. COMMENCE EARTHWORK GRADING TO THE ELEVATIONS AND HORIZONTAL LIMITS SHOWN ON THE GRADING PLAN AND PER THE EARTHWORK SPECIFICATIONS.
RIS.	 INSTALL THE PRINCIPAL SPILLWAY SIPHON SYSTEM, OUTLET SUPPORT AND PLUNGE POOL PER PLANS AND SPECIFICATIONS.
	7. FINISH GRADE ALL SECTIONS OF THE EMBANKMENT PER THE PLANS AND SPECIFICATIONS.
ACING	8. FINISH GRADE AND DRESS ALL BORROW AREAS PER SPECIFICATIONS.
	9. CONTRACTOR SHALL INSTALL FINAL STABILIZATION ON ALL DISTURBED AREAS. THE BMPs Sd1-S, Rd AND Sd1-BB SHALL REMAIN IN PLACE UNTIL 100% OF THE DISTURBED AREAS IS COVERED WITH PERMANENT STABILIZATION WITH A DENSITY OF 75%. AFTER APPROPRIATE PERMANENT STABILIZATION HAS BEEN ACHIEVED, THE CONTRACTOR WILL BE REQUIRED TO REMOVE ALL REMAINING BMP'S PRIOR TO FINAL
NLETS, O OR	PAYMENT OR RETAINER PAYMENT. 10. ALL CONSTRUCTION AND WORK PERFORMED ON THE PROJECT SITE SHALL COMPLY WITH LOCAL, STATE,
ON THAN THE ENT, TOOLS, EQUIREMENTS.	AND FEDERAL LAWS AND REGULATIONS. 11. SEE REQUIRED CONSTRUCTION INSPECTIONS.
TIMES	REQUIRED CONSTRUCTION INSPECTION BY EOR:
	1. PRE-CONSTRUCTION MEETING REQUIRED WITH ENGINEER A MINIMUM OF 14-DAYS BEFORE CONSTRUCTION IS PLANNED TO COMMENCE.
	2. CARTER ENGINEERING CONSULTANTS AND THE GEOTECHNICAL ENGINEER SHALL BE NOTIFIED WHERE THE PROJECT STRUCTURAL FILL IS LOCATED. STANDARD PROCTOR TESTING OF THE EARTHFILL MATERIAL IS REQUIRED PRIOR TO COMMENCING WORK ON THE DAM.
) COMPLY	 THE GEOTECHNICAL ENGINEER SHALL DELINEATE THE LIMITS OF DAM FOUNDATION UNDERCUTTING AND SUPERVISE ALL FILL MATERIAL PLACEMENT.
N REQUIRED LL CONDUCT ID ALL	4. THE GEOTECHINCAL ENGINEER SHALL INSPECT AND APPROVE ALL MATERIAL TO BE UTILIZED DURING CONSTRUCTION. CHANGES IN MATERIAL OR MATERIAL NOT MEETING THE EARTHWORK SPECIFICATIONS WILL RESULT IN PROJECT SHUTDOWN.
RAWING AND	 ENGINEER SHALL INSPECT SIPHON SYSTEM PRIOR TO INSTALLING THRUST BLOCKING AND CONCRETE COLLAR. PRESSURE TESTING THE SIPHON SYSTEM IS REQUIRED FOR HIGH HAZARD DAMS. ENGINEER SHALL BE PRESENT FOR ALL PRESSURE TESTING.
	6. ENGINEER SHALL INSPECT FINAL CONSTRUCTION PRIOR TO PERMANENT VEGETATION INSTALLATION.

- 7. ENGINEER SHALL INSPECT SITE AFTER FINAL VEGETATION HAS ACHIEVED COVERAGE STATED IN CONSTRUCTION SEQUENCE UNDER ITEM #9.
- 8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ENGINEER A MINIMUM OF 48 HOURS PRIOR TO REQUESTED SITE INSPECTION. ENGINEER WILL MAKE EVERY EFFORT TO MEET THE INSPECTION SCHEDULE REQUEST, HOWEVER LEAD TIMES MAY VARY.
- 9. THE ABOVE REQUIRED INSPECTIONS ARE MEANT TO REPRESENT TIMES WHEN THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND REQUEST A SPECIFIC SITE INSPECTION. IT SHOULD BE NOTED THAT CONTINUOUS CONSTRUCTION MONITORING AND INSPECTION SHALL BE PROVIDED BY THE ENGINEER THROUGHOUT CONSTRUCTION.

IMPERVIOUS AREA

EXISTING IM	PERVIOUS AREA (IN SQFT) TO REMAIN:
HOME	2271
DRIVEWAY	1609
DECK	752
TOTAL ON SITE AT END	4632

NO ADDITIONAL IMPERVIOUS AREA IS PROPOSED AS PART OF THIS PROJECT. NO IMPERVIOUS AREA WILL BE REMOVED AS PART OF THE STREAMBANK STABILIZATION.

1. TWO COPIES OF THE NPDES NOTICE OF INTENT MUST BE PRO INSPECTOR PRIOR TO INITIATING CONSTRUCTION. 2. IF PRIMARY PERMITEE CHANGES DURING THE COURSE OF A P SUBMIT COPIES OF THE NEW NOI TO THE CITY OF ALPHARET 3. ALL AREAS TO RECEIVE STRUCTURAL FILL TO BE CLEARED, ST STUMPS, AND ALL OTHER DELETERIOUS MATERIAL. STRUCTU AND ALL OTHER DELETERIOUS MATERIAL. FILL TO BE PLACED AT LEAST 95% STANDARD PROCTOR MAXIMUM DENSITY AND MOISTURE CONTENT, UNLESS OTHERWISE SPECIFIED IN THE THE PROJECT GEOTECHNICAL ENGINEER. ALL FILL SOILS TO THE PROJECT GEOTECHNICAL ENGINEER. DOCUMENTATION PROVIDED TO LAND DISTURBANCE ACTIVITY INSPECTOR FOR RIGHT-OF-WAY, (INCLUDING DECELERATION LANE) CONTACT

CITY OF ALPHARETTA NOTES

- PRIOR TO CONSTRUCTION FOR FURTHER TESTING REQUIREM 4. FAILURE OF THE CONTRACTOR TO PERFORM THE PRESCRIBED RESULT IN THE IMMEDIATE ISSUANCE OF A STOP-WORK ORDE UDC 3.1.1.F.2.D.
- 5. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION TEMPORARY OR PERMANENT, SHALL BE THE RESPONSIBILITY 6. ALL DISTURBED AREAS MUST BE VEGETATED WITHIN 14 DAYS
- 7. ALL FILL SLOPES SHALL HAVE SILT FENCE AT THE TOE OF THE
- 8. THIS SITE DOES CONTAIN STATE WATERS. 9. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVEN AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR
- LAND-DISTURBING ACTIVITIES. 10. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSIC SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO
- 11. THE CONTRACTOR SHALL REMOVE SEDIMENT ONCE IT HAS A
- HEIGHT OF THE SILT FENCE USED FOR EROSION CONTROL. 12. MAXIMUM CUT OR FILL SLOPES ARE 2 HORIZONTAL : 1 VERTIC
- 13. ANY DISTURBED AREA LET EXPOSED FOR 14 DAYS SHELL BE S SEEDING.
- 14. ALL SILT FENCE SHALL BE TYPE S
- 15. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A COND FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQ AS CONDITIONS DEMAND. (ALL MATERIALS SPILLED, DROPPE SITE ONTO ROADWAY OR INTO STORM DRAIN SYSTEM MUST
- 16. ALL STORM DRAINS AND DROP INLETS WILL HAVE 4" PERMAN INSTALLED PRIOR TO INSPECTION. MARKERS ARE AVAILABLE DEVELOPMENT DEPARTMENT 678-297-6070
- 17. THE OWNER WILL MAINTAIN STORM WATER RUNOFF CONTROL WILL BE INSTALLED IF DETERMINED NECESSARY BY CITY INSP 18. IRRIGATION SYSTEMS ARE NOT ALLOWED WITHIN THE PUBLIC
- 19. AT LEAST ONE PERSON ON A PROJECT OR SITE MUST HAVE C EDUCATION & TRAINING COURSE AND BE CERTIFIED BY GSW
- 20. SUBCONTRACTORS MUST COMPLETE EITHER LEVEL 1A EROSI
- ATTEND SUBCONTRACTOR AWARENESS SEMINAR. 21. LANDSCAPING, FENCING OR SAFETY BENCHES PER GEORGIA
- REQUIRED AROUND STORMWATER MANAGEMENT FACILITIES 22. THE CITY WILL REQUIRE A MAINTENANCE BOND TO REMAIN I (INCLUDING BUT NOT LIMITED TO CURB AND GUTTER, SIDEW MARKINGS AND STREET SIGNS OR SIGNALIZATION, THE ENTI AND OUTSIDE OF RIGHT-OF-WAY, DETENTION AND WATER O (1) YEAR AFTER FINAL PLAT SIGN-OFF OR UNTIL THE FINAL CE WHICHEVER IS LONGER. THIS BOND SHOULD BE GRANTED FO FINAL CERTIFICATE OF OCCUPANCY IS ISSUED.
- 23. NO WELLS OR SEPTIC SYSTEMS ARE PROPOSED OR EXIST ON
- 24. A SEPARATE BUILDING PERMIT WILL BE REQUIRED. ALL WALLS ACCEPTABLE DENSE VEGETATION AT THE TOP PER UDC ARTI
- 25. ALL METAL PIPES TO BE FULLY BITUMINOUS, ASPHALT, OR AL STORM STRUCTURES IN RIGHT-OF-WAY TO HAVE PAVED INVE
- 26. CONTRACTOR MUST ATTEND CITY OF ALPHARETTA PRE-CON INITIATION.
- 27. EROSION CONTROL MATTING SHALL BE INSTALLED ON ALL SI
- 28. APPROVED PLANS MUST BE KEPT ON SITE AT ALL TIMES. 29. SEDIMENT STORAGE VOLUME MUST BE IN PLACE PRIOR TO A
- ACTIVITIES UNTIL FINAL STABILIZATION OF THE SITE HAS BEEN 30. THERE ARE NO FEMA OR ALPHARETTA FLOODPLAINS LOCATE

RESIDENTIAL NOTES

- 31. SIDEWALK CROSS SLOPE SHOULD NOT EXCEED 2%, INCLUDIN 32. RETAINING WALLS 4 FEET OR TALLER REQUIRE A STRUCTURAL
- GEORGIA P.E. A SEPARATE CITY BUILDING PERMIT IS REQUIRE 33. ALL MATERIAL SPILLED, DROPPED, OR TRACKED FROM VEHIC
- REMOVED IMMEDIATELY BY SWEEPING. EXCESSIVE OFFSITE T OF A CONSTRUCTION EXIT AT THE DISCRETION OF THE CITY CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PE CONDITIONS DEMAND
- 34. EROSION CONTROL MEASURES MUST BE MAINTAINED AT AL FROM LEAVING THE SITE. FAILURE TO MAINTAIN EROSION CO VIOLATIONS INCLUDING STOP WORK ORDERS.
- 35. BURIAL OF CONSTRUCTION DEBRIS IS NOT PERMITTED.

±0.05 FEET S (SPOT ELEV., ETC.) ±0.05 FEET TIONS: ±0.10 FFFT NTROL BMPS: ±0.05 FEET

OVIDED TO THE LAND DISTURBANCE	
PROJECT, THE NEW PRIMARY PERMITEE MUST TA LAND DISTURBANCE INSPECTOR.	
RIPPED AND FREE OF TOPSOIL, ROOTS, RAL FILL TO BE CLEAN FROM ORGANICS) IN MAXIMUM 8" LIFTS AND COMPACTED TO	
D TO WITHIN 3%+ OF THE OPTIMUM PROJECT GEOTECHNICAL REPORT OR BY BE PLACED UNDER THE OBSERVATION OF	
OF COMPACTION TESTING SHALL BE ALL ROADWAY CONSTRUCTION IN I LAND DISTURBANCE ACTIVITY INSPECTOR IENTS.	
D EROSION CONTROL PRACTICES SHALL ER FOR THE PROJECT SITE, PURSUANT TO	
CONTROL PRACTICES, WHETHER OF THE OWNER.	
S OF FINAL GRADE.	LAL TAL
TED BY THE INSTALLATION OF EROSION TO, OR CONCURRENT WITH,	I DATE &
TIMES. IF FULL IMPLEMENTATION OF THE DN CONTROL, ADDITIONAL EROSION AND CONTROL OR TREAT THE SEDIMENT	LOCK REVISION 11.08.23 2.29.24
ACCUMULATED TO HALF THE ORIGINAL	EVISION E ISSUE 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
CAL. STABILIZED WITH MULCH OR TEMPORARY	
ITION, WHICH WILL PREVENT TRACKING OR	C2 F GISTEROV
UIRE PERIODIC TOP DRESSING WITH STONE, D, WASHED, OR TRACKED FROM VEHICLE OR BE REMOVED IMMEDIATELY BY SWEEPING.	NO. 26703
NENT POLLUTION PREVENTION MARKERS AT CITY OF ALPHARETTA COMMUNITY	PEOFESSIONAL WE
OLS AT ALL TIMES. ADDITIONAL CONTROLS ECTION.	GSWCC Level II Certification
COMPLETED THE LEVEL 1A FROSION	No. 00000003007
ICC.	
STORMWATER MANAGEMENT MANUAL	
S. IN PLACE ON ALL PUBLIC IMPROVEMENTS	
ALK, PAVEMENT AND BASE, PAVEMENT RE PROJECT STORM SYSTEM BOTH INSIDE	
2UALITY DEVICES) FOR A MINIMUM OF ONE ERTIFICATION OF OCCUPANCY IS ISSUED, DR ONE-YEAR AND RENEWED UNTIL THE	
S OVER 4'-0" REQUIRE FENCING OR ICLE IV 4.4.5J.	CARTER
UMINUM COATED WITH PAVED INVERTS. ALL RTS.	ENGINEERING
	CARTER ENGINEERING
LOPES 3:1 AND STEEPER.	SUITE 2000 WATKINSVILLE, GA 30677
ND DURING ALL LAND DISTURBING N ACHIEVED.	P: 770.725.1200 F· 770 725 1204
ED ON SITE.	www.carterengineering.com
NG DRIVEWAY CROSSING. L DESIGN SIGNED, DATED, AND SEALED BY A	
ED LES FROM SITE ONTO ROADWAY MUST BE	Ż
RACKING MAY WARRANT THE INSTALLATION OF ALPHARETTA INSPECTOR. THE N THAT WILL PREVENT TRACKING OR FLOW	D022 A
	Δ ^Δ Π
LTIMES. SEDIMENT SHALL BE PREVENTED DNTROL MEASURES MAY LEAD TO	
	No.
	SHEET TITLE:
	GENERAL NOTES
	PROJECT NAME:
	AGARWAL
	RESIDENCE
	SHEET NUMBER:
	C 2.0
	DATE:
	2/29/24

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ER/DESIGNER NOT RESPONSIBLE FOR COST CHANGES DURING PRELIMINARY PHASE. BIDS & QUOTES SHALL BE BASED ON PLAN SETS LABELED "ISSUE FOR BID". BIDS & QUOTES SHALL BE REVISED BASED ON PLANS LABELED "ISSUE









STREAM SCALE: 1" = ´

	CIV	IL ENGINEERING LA	ANDSCAPE	ARCHITECTU	JRE LAND PLANNING LAND SURVEY	' I N G	N	UN	ICIF	ΡΑL	SEI	RVIC	CES
		EXISTING PATIO —			-								
					-								
	EXISTING 6	" BLOCK WALL			-								
					1040								
		E	XISTING GRADI	E LINE									
	×				+								
	ERODED STR	EAMBANK						24					
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1 SECTION 10' H, 1" =	<u>B</u> 5' V												
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	EXISTING 6	" BLOCK WALL —			+		Z	/ / :			~	N 1	
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Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Origninal Streambank Section A

User-defined Invert Elev (ft) Slope (%)

Calculations

Compute by:

Known Q (cfs)

N-Value

= 1028.00 = 0.01 = 0.020

Known Q

= 125.00

Highlighted Depth (ft) Q (cfs) Area (sqft) Velocity (ft/s) Wetted Perim (ft) Crit Depth, Yc (ft) Top Width (ft) EGL (ft)

= 88.32 = 1.42 = 33.65 = 1.77 = 27.32 = 6.54

= 6.51

= 125.00

Monday, Jan 15 2024

(Sta, El, n)-(Sta, El, n)...

(0.00, 1036.48) -(0.44, 1036.25, 0.020) -(1.61, 1036.00, 0.020) -(4.82, 1034.32, 0.020) -(5.43, 1034.00, 0.020) -(6.37, 1033.46, 0.020) -(9.31, 1032.00, 0.020) -(9.60, 1031.52, 0.020) -(10.49, 1029.33, 0.020) -(11.03, 1028.00, 0.020) -(18.32, 1028.00, 0.020) -(20.00, 1028.00, 0.020) -(21.80, 1031.99, 0.020) -(25.73, 1033.97, 0.0 -(27.36, 1034.00, 0.020) -(40.00, 1035.46, 0.020)



Channel Report

Hydraflow Express Extension	for Autodesk® Civil 3D® by Autodesk, Inc.		Wednesday, Feb 14 2024
Proposed Strea	mbank Section A		
User-defined		Highlighted	
Invert Elev (ft)	= 1028.00	Depth (ft)	= 6.46
Slope (%)	= 0.01	Q (cfs)	= 125.00
N-Value	= 0.020	Area (sqft)	= 91.67
		Velocity (ft/s)	= 1.36
Calculations		Wetted Perim (ft)	= 36.88
Compute by:	Known Q	Crit Depth, Yc (ft)	= 2.11
Known Q (cfs)	= 125.00	Top Width (ft)	= 30.01
()			

(Sta, El, n)-(Sta, El, n)... (0.00, 1036.48) -(0.44, 1036.25, 0.020) -(1.61, 1036.00, 0.020) -(4.82, 1034.32, 0.020) -(5.43, 1034.00, 0.020) -(6.37, 1033.46, 0.020) -(9.31, 1032.00, 0.020) -(9.60, 1031.52, 0.020) -(10.49, 1029.33, 0.020) -(11.03, 1028.00, 0.020) -(18.32, 1028.00, 0.020) -(18.32, 1029.80, 0.020) -(19.82, 1029.80) -(19.82, 1029.80) -(19 -(25.00, 1032.30, 0.020) -(37.07, 1035.03, 0.020)

EGL (ft)



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Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Original Streambank Section B

User-defined Invert Elev (ft) Slope (%) N-Value Calculations

Compute by:

Known Q (cfs)

= 1028.25 = 0.01 = 0.020

Known Q = 125.00

Highlighted Depth (ft) Q (cfs) Area (sqft) Velocity (ft/s) Wetted Perim (ft) Crit Depth, Yc (ft) Top Width (ft) EGL (ft)

(Sta, El, n)-(Sta, El, n)... (0.00, 1038.14) -(2.03, 1038.00, 0.020) -(2.22, 1037.57, 0.020) -(3.01, 1037.36, 0.020) -(7.54, 1036.00, 0.020) -(13.00, 1033.98 -(17.60, 1032.00, 0.020) -(19.03, 1030.62, 0.020) -(19.61, 1030.00, 0.020) -(23.45, 1028.49, 0.020) -(25.03, 1028.25, 0.020) --(32.33, 1032.06, 0.020) -(34.72, 1033.45, 0.020) -(36.54, 1034.00, 0.020) -(36.86, 1034.10, 0.020) -(41.37, 1035.86, 0.020) -(4



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Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Proposed Streambank Section B

User-defined Invert Elev (ft) Slope (%) N-Value Calculations

Compute by:

Known Q (cfs)

= 0.01 = 0.020

= 125.00

= 1028.49

Known Q

Highlighted Depth (ft) Q (cfs) Area (sqft) Velocity (ft/s) Wetted Perim (ft) Crit Depth, Yc (ft) Top Width (ft) EGL (ft)

(Sta, El, n)-(Sta, El, n)... (0.00, 1038.14) -(2.03, 1038.00, 0.020) -(2.22, 1037.57, 0.020) -(3.01, 1037.36, 0.020) -(7.54, 1036.00, 0.020) -(13.00, 1033.98, -(17.60, 1032.00, 0.020) -(19.03, 1030.62, 0.020) -(19.61, 1030.00, 0.020) -(23.45, 1028.49, 0.020) -(28.32, 1028.68, 0.020) -(37.632.23, 1031.15, 0.020) -(32.23, 1032.65, 0.020) -(42.90, 1035.79, 0.020)







Depth (ft)

	CIVIL ENGINEERING LANDSCAPE ARCH	TECTURE LAND PLANNING LAND S	URVEYING MUN	ICIPAL SERVICES
Monday, Jan 15 2	024			
= 6.18 = 125.00 = 83.63				
= 1.49 = 29.29 = 2.39 = 25.92				
= 6.21 98, 0.020) -(15.17, 1033.38, (26.60, 1028.50, 0.020) -(30	0.020) 0.39, 1030.04, 0		DESCRIPTION	
(44.44, 1036.00, 0.020) -(60	0.99, 1038.00, 0		K SION DATE & I 23 - INITIAL S	
	enth (ft)		VISION BLOCH SSUE REVIS 1 11.08 2 2.29.2	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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	7.75			POFESSIONAL KING
	5.75		GSWCC No. (Level II Certification 000000003007
	3.75			
	1.75			
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60 65 70	-2.25			RTER NEERING
ovapdf.com)			CARTER ENG 3651 MARS F SUITE 2000	GINEERING HILL ROAD
			WATKINSVIL P: 770.725.12 F: 770.725.12 www.carterer	LE, GA 30677 200 204 ngineering.com
weanesday, red 14 2	024			
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(31.23, 1029.35, 0.020) -(31	.23, 1031.15, 0		J M	UK RES ALPHA
				NAL ANE
D	epth (ft) 11.51			
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45 50	-2.49		PROJECT N	UMBER:
ovapdf.com)			230	01SDA
			2/2	29/24









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#4			
24 HOUR CONTACT: Divya Agarwal		#42	STATE WATERS BUFFER
Phone: 203-919-3188 #5 TERTIARY PERMITTEE		THER PLANS	E ARE STATE WATERS LOCATED ON S WITH THE APPLICABLE 25-FOOT
Jivya Agarwai 115 Lambdin Ln Alpharetta. GA 30022		#45	RUNOFF COEFFICIENT
² hone: 203-919-3188		Proje	ct site weighted curve number (Al ct site weighted curve number (Al
#6 Total Property Area: 0.28 ACRES, To #7 GPS Location of Construction Exit:	tal Disturbed Area: 0.01 ACRES		
atitude: 34.22978°N Longitude: -84	.142773° W	<u>#29 ACTIVI</u>	TY SCHEDULE
9 DESCRIPTION OF THE CONSTRUCTION	ACTIVITY		
xisting land is comprised of a develop consists of rehabilitation of an existing	ed lot for a single-family residence. The proposed construction stream bank along Johns Creek .		
#11 PROJECT RECEIVING WATERS			TASK DESCRIPTION:
he receiving waters for this project is	Long Indian Creek.		PERIMETER TREE SAVE FENCE PERIMETER SILT FENCE
			INITIAL SEDIMENT STORAGE BMPs CLEARING & GRUBBING
#12			STREAMBANK STABILIZATION TEMPORARY STABILIZATION (GRASSI
I CERTIFY UNDER PENALTY OF LAW TH	AT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS		FINAL GRADING FINAL STABILIZATION
O a $ V$	AUTHORIZED AGENT, UNDER MY DIRECT SUPERVISION		
J. Bus King	2/14/2024		
ВКІАЛ КІМЅЕҮ, Р.Е. .E.# 26703	DATE:		START DATE: MARCH 1, 2024
&SC CERTIFICATION NUMBER 0000000	03007		
	SION, SEDIMENTATION AND POLITION CONTROL PLAN PROVIDES		
FOR AN APPROPRIATE AND COMPREHE GEORGIA WATER QUALITY CONTROL AC	NSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE CT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT		
CONTROL IN GEORGIA" (MANUAL) PUBLI COMMISSION AS OF JANUARY 1 OF THE	SHED BY THE GEORGIA SOIL AND WATER CONSERVATION YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED,		
PROVIDES FOR THE SAMPLING OF THE I OUTFALLS AND THAT THE DESIGNED SY	RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER (STEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS		
	ENTS CONTAINED IN THE GENERAL NPDES PERMIT NO GAR 100003.".		
4. Bur Kindy	2/14/2024		
. BRIAN KIMSEY, P.E. P.E.# 26703	DATE:		
E&SC CERTIFICATION NUMBER 0000000	03007		
ID ON-EXEMPT ACTIVITIES SHALL NOT BE (CONDUCTED WITHIN THE 25 OR 50–FOOT UNDISTURBED STREAM		
UFFERS AS MEASURED FROM THE POINT ARSHLAND BUFFER AS MEASURED FROM	T OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING		
THE NECESSARY VARIANCES AND PERMITS	р.		
CONSTRUCTION ACTIVITY DOES ENCROACH	IN A BUFFER.		
#10			
FI9 THE ESCAPE OF SEDIMENT FROM THE SI	TE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND		
SEDIMENT CONTROL MEASURES AND PRAC	CTICES PRIOR TO LAND DISTURBING ACTIVITIES.		
FZU EROSION CONTROL MEASURES WILL BF M	AINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED		
AN DOES NOT PROVIDE FOR EFFECTIVE	EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL ONTROL OR TREAT THE SEDIMENT SOURCE.		
¥21			
ALL DISTURBED AREA LEFT EXPOSED FOF)R TEMPORARY SEEDING.	R A PERIOD GREATER THAT 14 DAYS SHALL BE STABILIZED WITH MULCI	•	
#25			
"~~ Petroleum Based Products — Containers	for products such as fuels, lubricants and tars will be inspected		
daily for leaks and spills. This includes preventative maintenance of such equip	on-site vehicle and machinery daily inspections and regular ment. Equipment maintenance areas will be located away from state		
water, natural drains and storm water secondary containment liner to prevent, prohibited. Proper dispaced methods will	arainage inlets. In addition, temporary fueling tanks shall have a minimize site contamination. Discharge of oils, fuels and lubricants i include collection in a suitable containor and discover as accurate to	s	
local and State regulations.	molude conection in a suitable container and disposal as required b	y	
Paints/Finishes/Solvents — All products Excess product will not be discharged t with these products and product contai recommendations.	will be stored in tightly sealed original containers when not in use. to the storm water collection system. Excess product, materials used ners will be disposed of according to manufacturer's specifications a	nd	
Concrete Washing — Concrete wash dov will be allowed at the designated area prohibited.	vn of tools, concrete mixer chutes, hoppers and the rear of vehicles on this site. Washout of the drum at the construction site is		
Fertilizer/Herbicides — These products v specifications or above the guidelines s Erosion and Sediment Control in Georgi containers.	vill be applied at rates that do not exceed the manufacturer's et forth in the crop establishment or in the GSWCG Manual for a. Any storage of these materials will be under roof in sealed		
Building materials — No building or cor material will be disposed of in proper v	nstruction materials will be buried or disposed of onsite. All such waste disposal procedures.		
 Jocal State and manufacturar's real 	ommended methods for spill cleanup will be clearly posted and		
procedures will be made available to si – Material and equipment, necessary of	te personnel. f spill cleanup will be kept in the material storage areas. Typical		
naterials and equipment includes, but i itter, sand, sawdust and properly labele - Split prevention practices and proceed	s not limited to, brooms, dustpans, maps, rags, gloves, goggles, cat ed plastic and metal waste containers. Jures will be reviewed after a spill and adjusted as possessors to		
 Spin prevention practices and proced prevent future spills. All spills will be cleaned up immedia 	tely upon discovery. All spills will be reported as reauired by local.		
State and Federal regulations. - FOR SPILLS THAT IMPACT SURFACE W	ATER (LEAVE A SHEEN ON SURFACE WATER). THE NATIONAL RESPONSE		
CENTER (NRC) WILL BE CONTACTED WITH - FOR SPILLS OF AN UNKNOWN AMOUN	IN 24 HOURS AT 1 – 800 –424 – 8802. T, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITH 24 HOURS		
AT 1 – 800 – 424 – 8802. – FOR SPILLS GREATER THAN 25 GALLC CONTACTED WITHIN 24 HOURS	NS AND NO SURFACE WATER IMPACTS. THE GEORGIA EPD WILL BE		
-FOR SPILLS LESS THAT 25 GALLONS A LOCAL AGENCIES WILL BE CONTACTED AS	ND NO SURFACE WATER IMPACTS. THE SPILL WILL BE CLEANED UP AN S REQUIRED.	D	
The contractor shall notify the licensed	professional who prepared this plan if more than 1320 gallons of 0		
is stored onsite (this includes capacitie Containment and Countermeasures Plan	s of equipment).The Contractor will need a Spill Prevention prepared by that licensed professional.		
#28 STORM WATER POLLUTION			
The proposed silt fence is proposed to are expected due to the nature of this	help reduce pollutants in storm water discharges. No adverse impace construction activity.	ts	
	· · · · · · · · · · · · · · · · · · ·		

TERS LOCATED ON OR WITHIN 200FT OF THE PROJECT SITE AND THEY ARE SHOWN ON LICABLE 25-FOOT OR 50-FOOT UNDISTURBED BUFFERS.

curve number (AMC II) prior to construction is <u>70.1</u> curve number (AMC II) after construction is completed is <u>70.1</u>

	MONTHS (2024)	
ASK DESCRIPTION:	MARCH APRIL	
E SAVE FENCE		
FENCE		
NT STORAGE BMPs		
RUBBING		
STABILIZATION		
TABILIZATION (GRASSING)		
G		
ATION		
RCH 1, 2024	END: APRIL 31, 202	24

CIVIL	ENGI	NEEI	RING	LAI	NDS(САРЕ	ARC	HITE	CTUR	E	LAND) PLA	NG	LAND	SURV	VEYI	NG	M	UNI	CIF	ΡΑL	SE	R V	ICE	ΞS
																	EUCK EVISION DATE & DESCRIPTION	1.08.23 - INITIAL SUBMITTAL	2.29.24						
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																	CAF 365 SUT WA P: 7 F: 7 WW	GSV GSV GSV C C C C C C C C C C C C C C C C C C C	C L L L L L L L L L L L L L L L L L L L	R R R R R R R R R R R R R R		RI G D 0677	n n		
																		SILE DEVELOPMEN PLANS		FOR			115 LAMBDIN LANE - ALPHARETTA, GA 30022		
																ł	SHE	ET	TITLE	:					_
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																ŀ	SHE	ET I		IBEF	۲: . ()			-
																ŀ	PRC)JEC 23	т N 30	ими 01	BER S		4		-
																ŀ	DAT	E:	2/2	29	/2	<u>2</u> 4			



USE DRY STRAW OR HAY SHALL BE APPLI MULCH WILL BE SPRI DURING MONTHS TH	DRY HAY OF GOOL ED AT THE RATE O EAD UNIFORMLY W AT GRASSING SOU	2014LITY AND FREE OF WE 2.5 TONS PER ACRE. MULC 1THIN 24-HOURS AFTER SEE .D NOT BE APPLIED BASED	EDS SEEDS. DRY S CHING SHALL BE US DING. MULCH SHAL ON THE SCHEDULE	FIRAW OR SED LL BE USED F BELOW.
TEMPORARY AND PE REQUIREMENTS OF (IN GEORGIA".	RMANENT VEGETA CHAPTER 6 OF "THE	TION SHALL BE INSTALLED I MANUAL FOR EROSION AN	IN ACCORDANCE W ID SEDIMENTATION	/ITH THE CONTROL
	TL	EMPORARY GRASS	SING	Ds2
TEMPORARY GRASSI MILLET, OR GRASS S MULCH IS NOT REQUI GRASSING IS REQUIF	ES SHALL CONSIST UITABLE TO THE AI IRED BUT SHOULD RED WHEN DISTURI	OF SOWING A QUICK GRAS REA AND SEASON. LIME AND BE USED AS DICTATED BY S BED AREA IS LEFT EXPOSED	S SUCH AS RYE, BF) FERTILIZER RATE: SITE CONDITIONS.) MORE THAN 14 DA	ROWN TOP S PER SOILS TEST. TEMPORARY AYS.
SPECIES		RATE	PLANTING	G DATES
BROWN MILLET RYE		40#/ACRE 3 bu./ACRE	APRIL - JUI AUGUST-D	NE ECEMBER
WEEPING LOVEGI ANNUAL LESPEDE SUDAN GRASS	RASS EZA	5#/ACRE 40#/ACRE 60#/ACRE	FEBRUARY FEBRUARY APRIL-AUG	/-JUNE /-APRIL GUST
WHEAT		3bu./ACRE	SEPTEMBE	R-DECEMBER
	Pl	ERMANENT GRASS	SING	Ds3
A DEPTH NOT LESS I GROUND, WITH FERT 2000#/ACRE. THE GR ROCKS, CLODS, ROC WEATHER PERMITTI SEED SHALL BE UNIF AND SHALL BE UNIF AND SHALL BE DONE SEEDED AREAS AND APPLICATION SHALL	THAN 4". FERTILIZE: TILIZER AT THE RAT OUND SHALL BE FI OTS AND WEEDS. FI NG, SEEDING SHAL CORMLY SPREAD A IMMEDIATELY AFT SHALL ACHIEVE 75 BE DOUBLED ON S	R AND LIME SHALL BE UNIFO R AND LIME SHALL BE UNIFO R AND LIME SHALL BE AND LIME NISHED OFF SMOOTH AND U RTILIZER SHALL BE APPLIE L BE DONE WITHIN 24 HOUR L BE DONE WITHIN 24 HOUR T THE RATES SHOWN BELO RER SEEDING. MULCH SHALL W TO 100% SOIL COVER. TH LOPES STEEPER THAN 4:1.	JOHING AND DIGNI JAT THE RATE OF JNIFORM AND BE F D PER THE TABLE I S OF FERTILIZER A W. MULCHING IS RE BE UNIFORMLY AF E RATE OF	REE OF BELOW. IPPLICATION. EQUIRED PPLIED OVER
	GRASS	ING RATES AND SO	CHEDULE	
SPECIES		RATE	PLANTING I	DATES
TALL FESCUE		<i>50#/ACRE</i>	MARCH-AP AUGUST-O	PRIL/ ICTOBER
SERICEA LESPED WEEPING LOVE G UNHULLED BERM HULLED BERMUD, BAHIA	EZA (b) RASS UDA A	60#/ACRE 5#/ACRE 10#/ACRE 10#/ACRE 60#/ACRE	MARCH-JU MARCH-JU JAN-FEB/O MARCH-JU APRIL-MAR	NE NE ICT-DEC NE RCH
(a) USE A MINIMUM C HULLED SEED. (b) USE EITHER COM	DF 40# SCARIFIED S MON SERALA, OR II	EED. REMAINDER MAY BE U NTERSTATE SERICEA LESPE	'NSCARIFIED, CLEA EDEZA.	N
Agricultural lime is requ	uired at the rate of on	to two tons per acre unless so	oil tests indicate othe	rwise. Graded areas
require lime application not required. Agricultur	al lime is applied wi ral lime shall be within	thin six months of planting perr the specifications of the Geor	nanent perennial veg gia Department of Ag	etation, additional lime is friculture.
	FER	TILIZER REQUIREN	MENTS	
YPES OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATI
TYPES OF SPECIES . Cool season grasses	YEAR First Second Maintenance	ANALYSIS OR EQUIVALENT N-P-K 6-12-12 6-12-12 10-10-10	RATE 1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	N TOP DRESSING RATI 50-100 lbs./ac/ 1/2/ - 30
TYPES OF SPECIES 1. Cool season grasses 2. Cool season grasses and legumes	YEAR First Second Maintenance First Second Maintenance	ANALYSIS OR EQUIVALENT N-P-K 6-12-12 6-12-12 10-10-10 6-12-12 0-10-10 0-10-10	RATE 1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac. 1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	N TOP DRESSING RAT 50-100 lbs./ac/ 1/2/ - 30 0-50 lbs./ac. 1/ -
TYPES OF SPECIES 1. Cool season grasses 2. Cool season grasses and legumes 3. Ground Covers	YEAR First Second Maintenance First Second Maintenance First Second Maintenance	ANALYSIS OR EQUIVALENT N-P-K 6-12-12 6-12-12 10-10-10 6-12-12 0-10-10 0-10-10 10-10-10 10-10-10 10-10-10	RATE 1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac. 1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac. 1300 lbs./ac. 3/ 1300 lbs./ac. 3/	N TOP DRESSING RAT 50-100 lbs./ac/ 1/2/ - 30 0-50 lbs./ac. 1/ - -
TYPES OF SPECIES 1. Cool season grasses 2. Cool season grasses and legumes 3. Ground Covers 4. Shrub Lespedeza	YEAR First Second Maintenance First Second Maintenance First Second Maintenance First Maintenance	ANALYSIS OR EQUIVALENT N-P-K 6-12-12 6-12-12 10-10-10 6-12-12 0-10-10 0-10-10 10-10-10 10-10-10 10-10-10 0-10-10 0-10-10	RATE 1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac. 1500 lbs./ac. 1000 lbs./ac. 1300 lbs./ac. 300 lbs./ac. 700 lbs./ac. 700 lbs./ac. 700 lbs./ac. 400 lbs./ac. 100 l	N TOP DRESSING RATI 50-100 lbs./ac/ 1/2/ - 30 0-50 lbs./ac. 1/ - - -
TYPES OF SPECIES 1. Cool season grasses 2. Cool season grasses and legumes 3. Ground Covers 4. Shrub Lespedeza 5. Warm season grasses	YEAR First Second Maintenance First Second Maintenance First Second Maintenance First Second Maintenance First Second Maintenance	ANALYSIS OR EQUIVALENT N-P-K 6-12-12 6-12-12 10-10-10 6-12-12 0-10-10 10-10-10 10-10-10 10-10-10 10-10-10 0-10-10 0-10-10 6-12-12 6-12-12 10-10-10	RATE 1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac. 1500 lbs./ac. 1500 lbs./ac. 1300 lbs./ac. 1300 lbs./ac. 700 lbs./ac. 700 lbs./ac. 700 lbs./ac. 400 lbs./ac. 800 lbs./ac. 400 lbs./ac.	N TOP DRESSING RAT 50-100 lbs./ac/ 1/2/ - 30 0-50 lbs./ac. 1/ - - - - - - - 50-100 lbs./ac. 2/ 6/ 50-100 lbs./ac. 2/ 30 lbs./ac.
TYPES OF SPECIES	YEAR First Second Maintenance First Second Maintenance First Maintenance First Second Maintenance First Second Maintenance	ANALYSIS OR EQUIVALENT N-P-K 6-12-12 6-12-12 10-10-10 0-10-10 10-10-10 10-10-10 10-10-10 10-10-10 0-10-10 0-10-10 0-10-10 6-12-12 10-10-10 0-10-10 0-10-10	RATE 1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac. 1500 lbs./ac. 1500 lbs./ac. 1300 lbs./ac. 300 lbs./ac. 700 lbs./ac. 700 lbs./ac. 400 lbs./ac. 1500 lbs./ac. 1500 lbs./ac. 1500 lbs./ac. 1500 lbs./ac. 1500 lbs./ac. 1500 lbs./ac. 1500 lbs./ac.	N TOP DRESSING RAT 50-100 lbs./ac/ 1/2/ - 30 0-50 lbs./ac. 1/ - - - - - - 50-100 lbs./ac. 2/ 6/ 50-100 lbs./ac. 2/ 30 lbs./ac. 50 lbs./ac. 6/

APPROVED TACKIFIERS AND BINDERS		
	PRODUCT OR TRADE NAME	RECOMMENDED APPLICATION RATE
	Finn A500 HYDRO-STIK	40 lb./ac.
	Agro Track MP	PMR
	CONWED CON-TAC	40 lb./ac.
	Eco Tak-OP/Eco Tak-SATII PMR	
	Emulsified Asphalt	100 gal. of SS-1h or CSS-1h and 100 gal. of water per ton of mulch
	Hercules Soiloc-E	PMR
	HYDRO-BOND	35 lb/ac.
	RMB-plus	80-120 lb./ac.
	TACPAC GT	PMR
	TERRA-MULCH	
	TACKING AGENT III	PMR
DUST CONTROL		

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NOTES:









er/designer not responsible for cost changes during preliminary phase. Bids & Quotes shall be based on plan sets labeled "issue for bid". Bids & Quotes shall be revised based on plans labeled "issue