CONTRACT DOCUMENTS FOR **CONSTRUCTION OF**

LAKE PEACHTREE LAKE DREDGING PROJECT



PREPARED FOR

FAYETTE COUNTY WATER SYSTEM FAYETTE COUNTY, GEORGIA

VOLUME 2 of 2: DRAWINGS

CH2MHILL

CERTIFICATIONS

DESIGN PROFESSIONAL

- I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY
- SUPERVISION.
 I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED.

GEORGIA REGISTERED ENGINEER NO: 30375

LEVEL II CERTIFIED DESIGN PROFESSIONAL NO: 432

Project No. 481967

DECEMBER 2014

For information regarding this project, contact: ALAN BOWLING, P.E. 6600 Peachtree Dunwoody Road 400 Embassy Row, Suite 600 Atlanta, GA 30328 770.604.9095

BID DOCUMENTS

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SECTION (LETTER) OR

A

D-1

DETAIL AND SECTION DESIGNATION

DWG NUMBER WHERE SECTION

OR DETAIL IS SHOWN

DETAIL (NUMERAL)

DESIGNATION-

LEGEND PROPOSED ITEM **EXISTING** — SS — SANITARY SEWER STORM DRAIN — SD — WATER MAIN OR SERVICE — OE — OVERHEAD POWER — UG — **UNDERGROUND POWER** FIRE HYDRANT MANHOLE ○ MH MH PROPERTY AND/OR **RIGHT-OF-WAY LINE** CENTERLINE (Q) **INFLOW CHANNELS** 702 <u>7</u>02 **CONTROL POINT** 370___ CONTOUR **× 340** SPOT ELEVATION FINISH GRADE ELEVATION SOIL BORING FENCE LINE 12" CMP 12" CMP CULVERT WITH SIZE AND TYPE -SD--------SD-----STORM DRAIN CATCH BASIN _SSFM_ -SSFM-SANITARY SEWER FORCE MAIN ___ 2" G ___ —2" G — GAS PIPELINE OHP&T-– OHP&T — OVERHEAD POWER AND TELEPHONE ___ T ___ UNDERGROUND TELEPHONE __ OHT __ __ OHT ___ OVERHEAD TELEPHONE ____ TV ____ ___TV___ UNDERGROUND TELEVISION CABLE ___FO__ ___FO___ UNDERGROUND FIBER OPTIC CABLE ____ **POWER POLE** POLE GUY WIRE SANITARY SEWER CLEANOUT TREE (SIZE & SPECIES IF KNOWN) EDGE OF TREE CANOPY STRUCTURE ALONG LAKE EDGE (DOCK, BOATHOUSE OR SIMILAR) UNDISTURBED BUFFER TREE FENCE SILT FENCE LIMITS OF DISTURBANCE **EDGE OF WATER** CHAIN LINK FENCE CONSTRUCTION ACCESS ROAD -XXX -----XXX -----TURBIDITY CURTAIN

CART PATH

TEMPORARY STREAM CROSSING

ABBREVIAT	TIONS
APPROX.	APPROXIMATE
ASPH	ASPHALT
ВН	BOREHOLE (GEOTECH EXPLORATION)
BW	BOTTOM OF WALL
СВ	CATCH BASIN
CI	CURB INLET
CMP	CORRUGATED METAL PIPE
CONC.	CONCRETE
CONT.	CONTINUED
D/W	DRIVEWAY
DI	DROP INLET
DIP	DUCTILE IRON PIPE
DB	DEED BOOK
C.Y.	CUBIC YARD
DWCB	DOUBLE WING CATCH BASIN
EL.,ELEV.	ELEVATION
EOP	EDGE OF PAVEMENT
	EXISTING
EX.,EXIST.	
EIP	EXISTING IRON PIN
FES	FLARED END SECTION
FH	FIRE HYDRANT
GADOT	GEORGIA DEPARTMENT OF TRANSPORTATION
GL	GAS LINE
GW	GUY WIRE
HC	HANDICAPPED PARKING
HOR	HORIZONTAL
HW, HDWL	HEADWALL
IE	INVERT ELEVATION
INV.	INVERT
IPF	IRON PIN FOUND
LF	LINEAR FEET
LP MH	LAMP POST MANHOLE
NSF	NATIONAL SANITATION FOUNDATION
NWS	NORMAL WATER SURFACE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECT
PG.	PAGE
PP	POWER POLE
PROP.	PROPOSED
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
RC	RADIUS OF CURVATURE
RCBC	REINFORCED CONCRETE BOX CULVERT
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT-OF-WAY
SDCB	STORM DRAINAGE CATCH BASIN
SDMH	STORM DRAINAGE MANHOLE
SS	SANITARY SEWER
SSMH, SAN MH	SANITARY SEWER MANHOLE
SSP	SANITARY SEWER PIPE
S/W	SIDEWALK
STD.	STANDARD
	STORMWATER MANHOLE
STW	
SD	STORM DRAIN
SDP	STORM DRAIN PIPE
STA.	STATION
ТВМ	TEMPORARY BENCH MARK
TBX	TELEPHONE BOX
TEMP.	TEMPORARY
TP-H/T	TRAVERSE POINT (HUB AND TACK)
TP-PK	TRAVERSE POINT (PK NAIL)
TW	TOP OF WALL
TYP	TYPICAL
UGT	UNDERGROUND TELEPHONE CABLE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
W.M.	WATER MAIN
WL	WATER LINE
\	\A/A TED \/A \/E



품 序

SHEET INDEX, LEGEND AND ABBREVIATIONS

E DUNWOODY ROAD 7 ROW, SUITE 600 328 PH: 770.604.9095

REESY F

Know what's below.

WV

WS

WSEL

WATER VALVE

WATER SURFACE

WATER SURFACE ELEVATION

GENERAL NOTES

CONTRACTOR REQUIREMENTS:

- 1. WORK REQUIRED UNDER THIS CONTRACT INCLUDES FURNISHING ALL LABOR,MATERIALS, EQUIPMENT, AND INCIDENTALS REQUIRED FOR THE REMOVAL OF ACCUMULATED SEDIMENT FROM LAKE PEACHTREE
- 2. GENERAL CONTRACTORS BIDDING AND WORKING ON THIS PROJECT MUST BE GEORGIA LICENSED CONTRACTORS.
- 3. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF THE EXISTING SUBSURFACE CONDITIONS. ANY SUBSURFACE INVESTIGATION REPORTS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. EXISTING SOIL CONDITIONS ON THE PROJECT SITE MAY INCLUDE AREAS OF SATURATED SOILS. CONTRACTOR SHALL INCLUDE PROVISIONS FOR WORKING ON WET SOILS IN HIS BID.
- 4. CONTRACTOR SHALL VERIFY WORK IN FIELD AND SHALL SATISFY HIMSELF AS TO THE ACCURACY BETWEEN WORK SET FORTH ON THESE PLANS AND THE WORK REQUIRED IN FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING AT LEAST SEVEN DAYS PRIOR TO THE START OF CONSTRUCTION.
- 5. CONTRACTOR SHALL HAVE AN APPROVED SET OF PLANS, SHOP DRAWINGS, AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES. SURVEY EQUIPMENT MUST BE KEPT ON SITE AT ALL TIMES.

SURVEY INFORMATION:

- 1. TOPOGRAPHIC DATA SHOWN ON THESE PLANS IS FOR THE INFORMATION OF THE CONTRACTOR. THE CONTRACTOR SHALL MAKE SUCH ADDITIONAL INVESTIGATIONS AS REQUIRED TO ACQUAINT HIMSELF ADEQUATELY WITH THE SITE TOPOGRAPHY AND SUBSURFACE CONDITIONS FOR THE PREPARATION OF HIS BID AND FOR THE SUCCESSFUL EXECUTION OF HIS WORK.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURVEY REQUIREMENTS OF THIS PROJECT AND SHALL USE A GEORGIA LICENSED LAND SURVEYOR.
- 3. EXISTING CONDITIONS INFORMATION AND TOPOGRAPHIC SURVEY SHOWN ON THIS DRAWING IS BASED ON A RECENT FIELD SURVEY PERFORMED BY ROCHESTER & ASSOCIATES FAYETTEVILLE, GA (770) 716-8123. THIS SURVEY DEPICTS SITE CONDITIONS AT THE TIME OF THE SURVEY, SEPTEMBER 2014.
- 4. SURVEY HORIZONTAL AND VERTICAL CONTROL BASED ON GEORGIA STATE PLAN WEST NAD 83 AND NAVD 88. ALL STATIONING AND DISTANCES INDICATED ON THE DRAWINGS ARE BASED ON HORIZONTAL MEASUREMENTS.
- 5. SURVEY MONUMENTS DISTURBED BY THE CONTRACTOR SHALL BE RESET BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF GEORGIA. PRIOR TO DISTURBANCE. CONTACT MONUMENT OWNER TO VERIFY LOCATION OF EXISTING MONUMENT

PERMITTING/STORMWATER MANAGEMENT:

- PRIOR TO ANY LAND DISTURBANCE ACTIVITY, THE LIMITS OF CONSTRUCTION SHALL BE CLEARLY AND ACCURATELY DEMARCATED BY THE CONTRACTOR. ALL PERIMETER CONTROLS, EROSION CONTROL, AND TREE PROTECTION MEASURES SHALL BE IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. REFER TO "CE" DRAWINGS FOR CONSTRUCTION ENTRANCE/EXITS, ACCESS ROADS, STAGING AREAS, TREE PROTECTION FENCING, AND ALL OTHER EROSION CONTROL MEASURES.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL PERMITS AS REQUIRED, INCLUDING LAND DISTURBANCE. NPDES STORM WATER. AND CONSTRUCTION PERMITS AND SHALL MAKE ALL NOTIFICATIONS AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE NPDES STORMWATER PERMIT.
- CONTRACTOR SHALL COORDINATE WITH ENGINEER AND OWNER PRIOR TO STARTING WORK.
- 4. WETLAND CERTIFICATION: THE DESIGN PROFESSIONAL, WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1) THE NATIONAL WETLAND INVENTORY MAPS HAVE BEEN CONSULTED; AND, 2) THE APPROPRIATE PLAN SHEET DOES NOT INDICATE AREAS OF UNITED STATES ARMY CORPS OF ENGINEERS JURISDICTIONAL WETLANDS AS SHOWN ON THE MAPS; AND. 3) THE LAND OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND DISTURBANCE OF PROTECTED WETLANDS SHALL NOT OCCUR UNLESS THE APPROPRIATE FEDERAL WETLANDS ALTERATION (SECTION 404) PERMIT HAS BEEN OBTAINED. THERE ARE NO WETLANDS BEING DISTURBED ONSITE.
- 5. THE LAKE THAT IS BEING IMPROVED AS PART OF THIS PROJECT IS LIKELY JURISDICTIONAL WATERS OF THE UNITED STATES. THE EXTENT OF THE JURISDICTIONAL WATERS ARE SHOWN ON THE OVERALL SITE PLAN. A NATIONWIDE PERMIT (# 33) HAS BEEN OBTAINED FROM THE US ARMY CORPS OF ENGINEERS FOR CROSSING STREAMS AS PART OF THIS PROJECT.
- 6. THE OWNER/ENGINEER HAVE REVIEWED THE APPROPRIATE LOCAL. STATE. AND FEDERAL REGULATIONS REGARDING DEVELOPMENT ACTIVITIES ADJACENT TO FLOODPLAINS AND HAVE DETERMINED THAT THIS DEVELOPMENT PLAN SATISFIES THE STANDARDS PRESENTED IN APPLICABLE REGULATIONS.
- 7. THIS PROJECT IS LOCATED WITHIN THE FLOODPLAIN ZONE A PER FIRM PANEL 131130089E, DATED SEPTEMBER 26, 2008.

ACCESS:

1. THE CONTRACTOR SHALL NOT ACCESS THE WORK FOR THIS PROJECT EXCEPT AT SPECIFIC ACCESS POINTS THAT ARE AGREED UPON IN WRITING BETWEEN THE CONTRACTOR AND PROPERTY OWNERS.

UTILITY NOTES

- 1. THE EXISTING UTILITIES SHOWN AND INDICATED ON THE DRAWINGS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR DISRUPTION OF UTILITY SERVICE DURING CONSTRUCTION. THE CONTRACTOR SHALL CONTACT UTILITIES PROTECTION CENTER IN METRO ATLANTA OR THROUGHOUT GEORGIA (811) AND/OR OWNERS OF THE UTILITIES TO VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- 2. CONTRACTOR IS TO MAINTAIN CONTINUOUS UTILITY SERVICES TO ALL LOCATIONS IN THE PROJECT AREA.
- 3. THE CONTRACTOR SHALL PROVIDE ACCESS TO UTILITY COMPANIES FOR MAINTENANCE AND WORK ON THEIR UTILITIES DURING THE COURSE OF CONSTRUCTION.
- 4. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES WHOSE LINES ARE WITHIN THE PROJECT AREA, PRIOR TO CONSTRUCTION, AND SHALL COORDINATE ANY RELOCATION OF THE EXISTING UTILITIES, UNLESS OTHERWISE SPECIFIED OF THE PLANS. ANY CONFLICTS WITH THE EXISTING UTILITIES WHICH ARE NOT NOTED ON THE PLANS SHALL BE RESOLVED BETWEEN THE CONTRACTOR AND THE RESPECTIVE UTILITY COMPANY AT NO COST TO THE OWNER. ALL SUCH RELOCATIONS SHALL BE NOTED ON THE AS BUILT DRAWINGS.
- 5. BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL UTILITIES FROM DAMAGE CAUSED BY CONTRACTOR OPERATIONS AND/OR RELATED WORK OF THE CONTRACTOR OR HIS AGENT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO DAMAGED UTILITIES AT HIS OWN EXPENSE. CONTRACTOR SHALL HOLD HARMLESS THE ENGINEER AND THE OWNER FOR ANY INCONVENIENCE OR DELAY CAUSED BY THE OPERATIONS OF OTHERS IN PERFORMING THE ABOVE WORK. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHERS TO PROVIDE SATISFACTORY PROGRESS IN THE PROJECT AREA.
- UTILITY LATERALS ARE SPECIFICALLY EXCLUDED FROM THESE DRAWINGS. THESE UTILITY LATERALS INCLUDE BURIED WATER, SEWER, GAS, ELECTRIC, TELEVISION AND TELEPHONE SERVICES, STREET LIGHTING AND TRAFFIC DETECTOR LOOPS. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL SUCH FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL SUCH FACILITIES THAT ARE DAMAGED DURING CONSTRUCTION. PAYMENT FOR LOCATING, PROTECTING, COORDINATING, AND REPAIRING EXISTING FACILITIES WILL BE INCLUDED IN OTHER ITEMS OF WORK AND NO ADDITIONAL COMPENSATION WILL BE MADE THEREFORE. ALL REPAIRS SHALL BE MADE IN ACCORDANCE WITH STANDARDS AND REQUIREMENTS OF THE UTILITY OWNER. UTILITY SUPPORT METHODS WILL BE SUBMITTED TO ENGINEER PRIOR TO CONSTRUCTION FOR APPROVAL.
- 7. UTILITIES SHOWN ON THIS DRAWING ARE BASED ON VISUAL OBSERVATION AND LOCATION. UNDERGROUND UTILITIES ARE NOT SHOWN, AND ARE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE. THE CONTRACTOR SHALL CONTACT THE UTILITIES PROTECTION CENTER AT 811 PRIOR TO ANY DIGGING.

CONSTRUCTION NOTES:

- 1. CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER OF ALL ACTIVITIES THAT SIGNIFICANTLY AFFECT NOISE LEVELS OR TRAFFIC IN THE AREA.
- 2. THE CONTRACTOR SHALL DISPOSE OF WASTE SOIL OFF SITE, AT AN APPROVED SITE THAT MEETS ALL APPLICABLE STATE AND LOCAL PERMITTING REQUIREMENTS. THE CONTRACTOR SHALL STOCKPILE EXCAVATION MATERIAL IN ACCORDANCE WITH GADOT STANDARD SPECIFICATIONS.
- 3. CONTRACTOR SHALL ACCESS THE LAKE VIA THE ACCESS ROADS SHOWN ON DRAWINGS.
- 4. TREE REMOVAL FOR STAGING AREAS AND ACCESS TO LAKE WILL NOT BE PERMITTED UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS, OR APPROVED IN WRITING BY THE PROPERTY OWNER. THE CONTRACTOR SHALL STAKE OUT CONSTRUCTION LIMITS AND STAGING AREAS FOR APPROVAL BY ENGINEER PRIOR TO CLEARING.
- 5. CONTRACTOR SHALL PROTECT EXISTING UTILITIES, SIDEWALKS AND TRAILS WHEN CROSSING FOR ACCESS. SANITARY SEWER UTILITY EASEMENTS MAY ONLY BE CROSSED AT DESIGNATED LOCATIONS AS SHOWN ON DRAWINGS. EXISTING UTILITIES OR FEATURES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED / REPLACED BY THE CONTRACTOR TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
- 3. GRADES, ELEVATIONS, AND LOCATIONS SHOWN ON THE PLANS FOR DRAINAGE STRUCTURES MAY BE MINIMALLY ADJUSTED DURING CONSTRUCTION AT CONTRACTOR'S EXPENSE AS DIRECTED BY THE ENGINEER TO ACCOMMODATE UNFORESEEN EXISTING CONDITIONS.
- 7. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH APPLICABLE PEACHTREE CITY STANDARDS

JOB SITE CONDITIONS:

- 1. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS AT THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE WORK SITE AGAINST TRESPASS, VANDALISM, DUMPING, AND THEFT.
- 3. CONTRACTOR SHALL MAINTAIN STORM DRAINAGE DURING CONSTRUCTION. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE TO AND THROUGH EXISTING DRAINAGE FACILITIES FROM ALL DISTURBED AREAS BOTH DURING AND AT THE COMPLETION OF THE PROJECT.

TRAFFIC NOTES:

- I. TRAFFIC CONTROL SIGNS AND BARRICADES SHALL BE INSTALLED AND MAINTAINED IN ORDER TO ALLOW LOCAL TRAFFIC ROADWAY ACCESS DURING CONSTRUCTION PERIODS. THE CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE CONTRACTOR SHALL MAINTAIN ADEQUATE INGRESS AND EGRESS TO ALL PROPERTIES/DRIVEWAYS AT ALL TIMES.
- 2. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SUITABLE SIGNAGE, BARRICADES, AND LIGHTS FOR PROTECTION FROM TRAFFIC. ANY EXISTING ROAD SIGN REMOVED FOR CONSTRUCTION SHALL BE REPLACED BY THE END OF THE WORKING DAY.
- 3. THE CONTRACTOR SHALL NOT CLOSE OR BLOCK ANY HIGHWAY, STREET, OR ROADWAY WITHOUT OBTAINING PRIOR WRITTEN PERMISSION FROM THE PROPER AUTHORITIES.
- 4. THE CONTRACTOR WILL COORDINATE TRAFFIC CONTROL ISSUES WITH THE CITY DOT, ENGINEER, AND OWNER.

VEGETATION DISTURBANCE

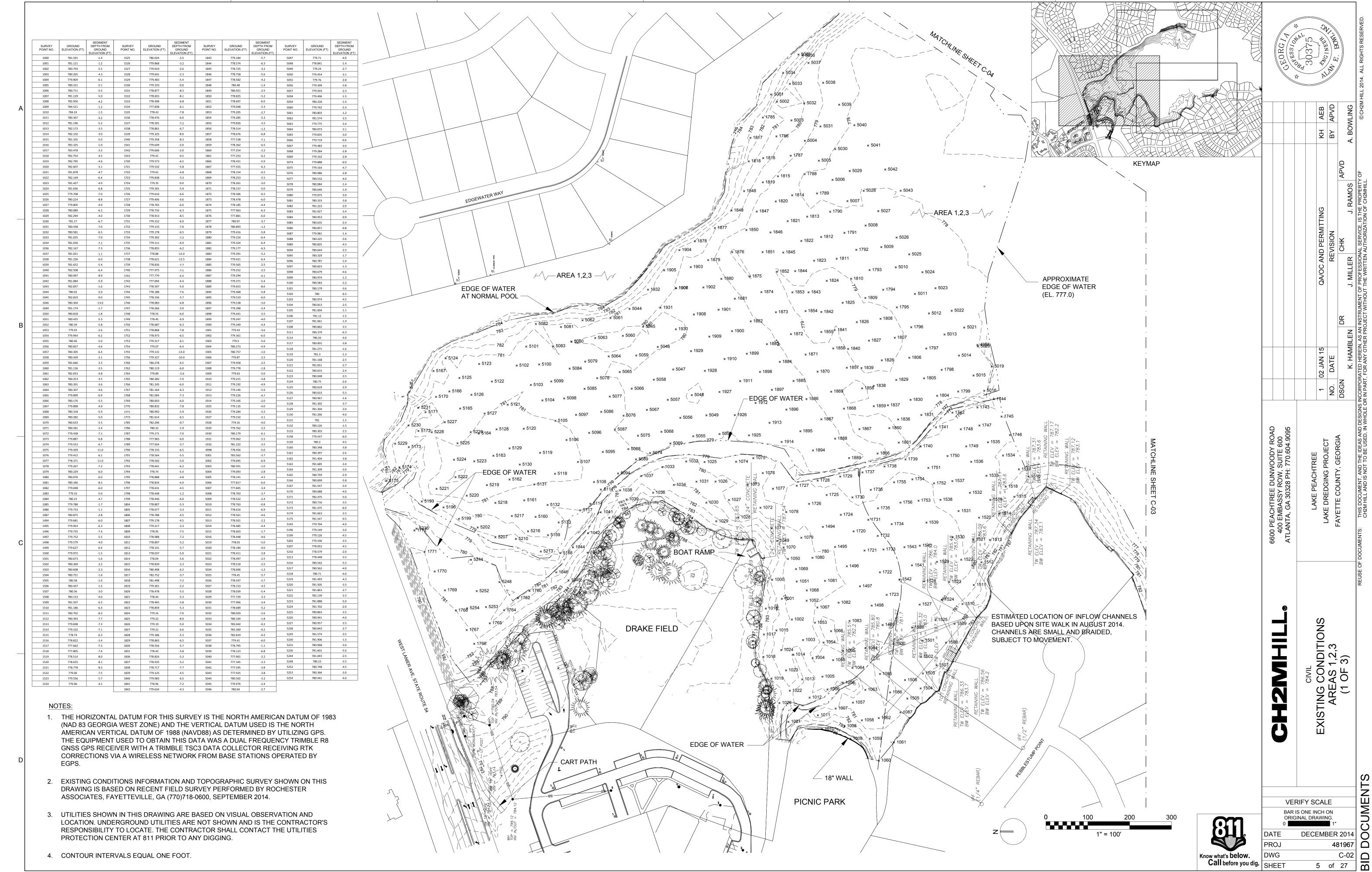
- I. TREES SHALL NOT BE DAMAGED OR REMOVED UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS. LANDSCAPING NOT DESIGNATED FOR REMOVAL THAT IS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED WITH THE SAME VARIETIES AND AGE OF EXISTING LANDSCAPE VEGETATION AND PLANTS. THE CONTRACTOR SHALL NOT DISTURB AND SHALL PROTECT ALL TREES AND SHRUBS OUTSIDE OF CONSTRUCTION LIMITS, IN ADDITION TO THOSE THAT RECEIVE TREE/SHRUB PROTECTION BARRIERS INSIDE PROJECT LIMITS.
- 2. THE CONTRACTOR SHALL CONDUCT OPERATIONS IN SUCH A MANNER AS TO PREVENT INJURY TO EXISTING VEGETATION THAT IS TO REMAIN GROWING. IF ANY INJURIES TO VEGETATION OCCUR, BROKEN BRANCHES SHALL BE REMOVED AND ROUGH EDGES AND SCARRED LIMBS SHALL BE SHAPED, MADE SMOOTH, AND OTHERWISE REPAIRED. ANY VEGETATION THAT IS DAMAGED TO SUCH AN EXTENT AS TO DESTROY THEIR VALUE FOR LANDSCAPE PURPOSES SHALL BE REMOVED, DISPOSED OF, AND REPLACED. GRASS OR GROUND COVER THAT IS DAMAGED SHALL BE SEEDED AND MULCHED AND/OR SODDED TO MATCH EXISTING AGE AND SPECIES BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 3. TREES GREATER THAN 6" DIAMETER AT BREAST HEIGHT SHALL NOT BE CUT DOWN WITHOUT PRIOR WRITTEN APPROVAL FROM ENGINEER (UNLESS MARKED FOR REMOVAL ON DEMOLITION PLAN). RADIUS OF TREE PROTECTION BARRIER FENCING IS REQUIRED FOR TREES WITH GREATER THAN 6" CALIPER AT BREAST HEIGHT AND SHALL BE ONE (1) FOOT FROM TREE TRUNK FOR EACH INCH OF TRUNK DIAMETER, OR ONE QUARTER (1/4) THE HEIGHT OF THE TREE-WHICHEVER IS GREATER.
- 4. CONSTRUCTION DEBRIS AND TREES THAT HAVE BEEN DAMAGED OR FELLED SHALL BE REMOVED OFF SITE BY THE CONTRACTOR OR USED AS MULCH TO STABILIZE DISTURBED AREAS.
- 5. ALL WASTE, SEDIMENT, DEBRIS, BRUSH, DISCARDED MATERIALS, AND RUBBISH SHALL BE HAULED OFF THE PROJECT SITE NO LESS THAN ONCE PER WEEK. EXISTING SITE MAY CONTAIN RUBBISH THAT SHALL BE REMOVED PRIOR TO SITE GRADING. ANY MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN A LAWFUL MANNER AT ONLY APPROVED AND PERMITTED DISPOSAL SITE(S)

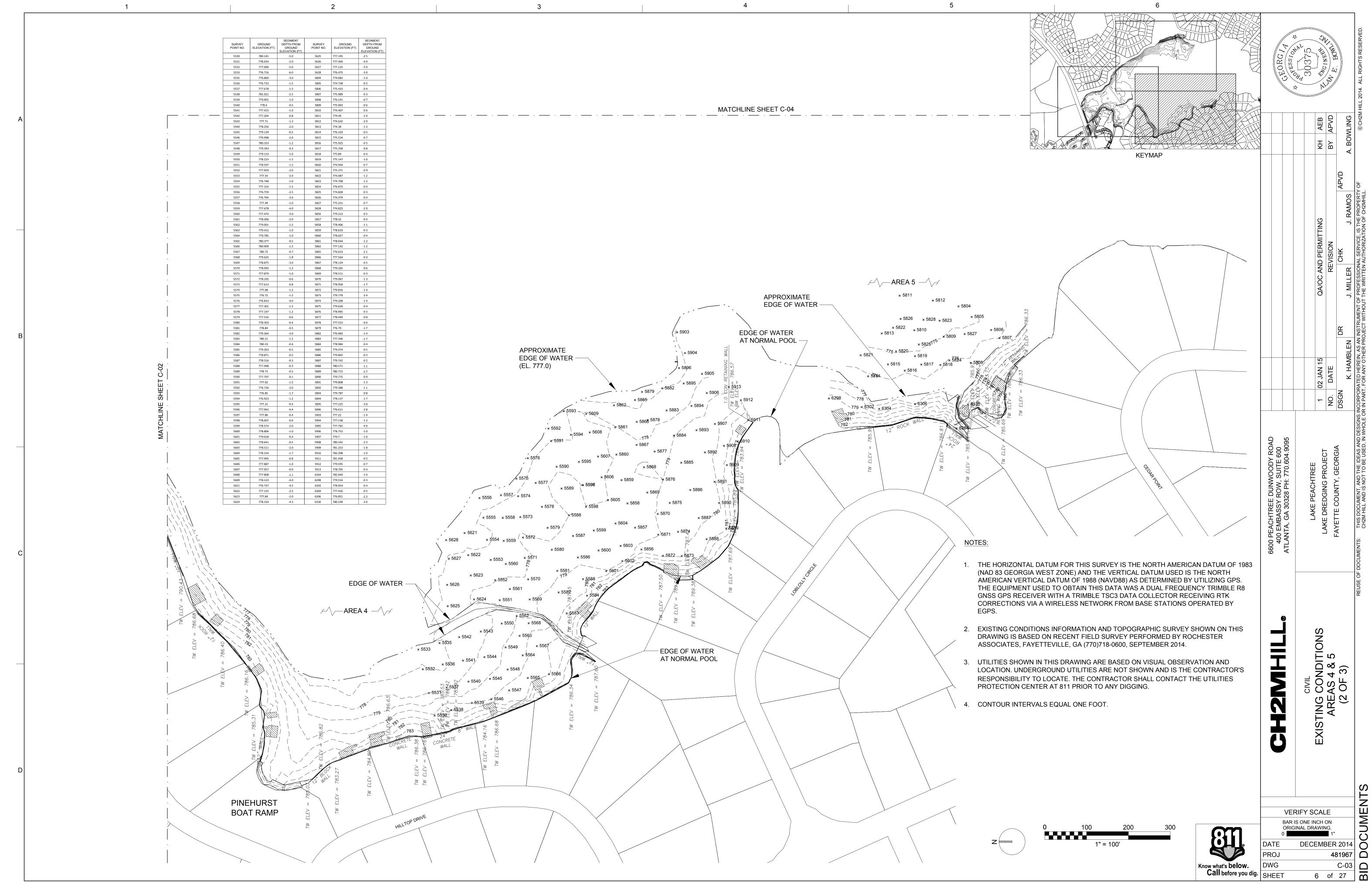


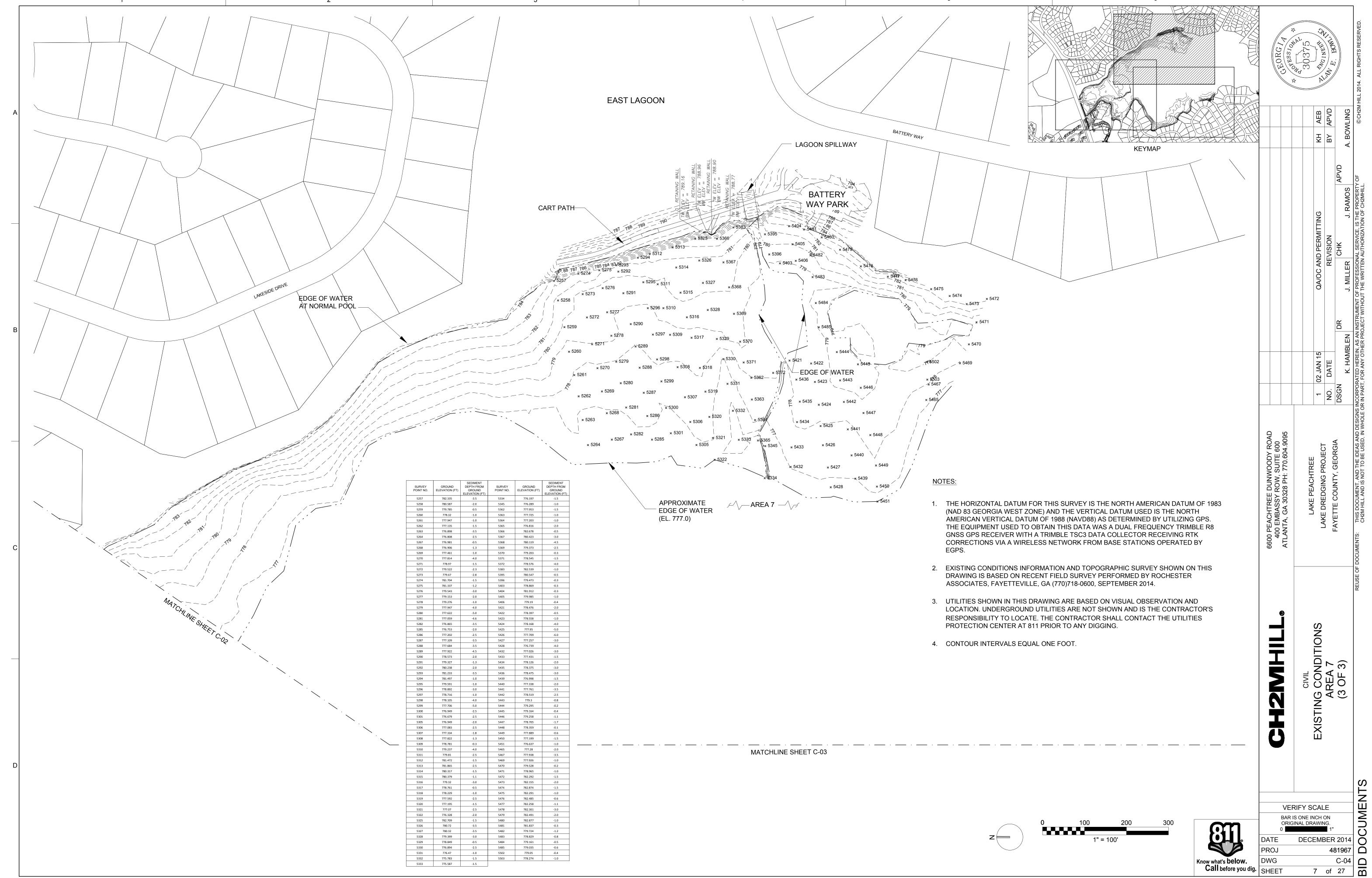
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6600 PEACHTREE DUNWOODY ROAD 400 EMBASSY ROW, SUITE 600 ATLANTA, GA 30328 PH: 770.604.9095	LAKE PEACHTREE LAKE DREDGING PROJECT FAYETTE COUNTY, GEORGIA
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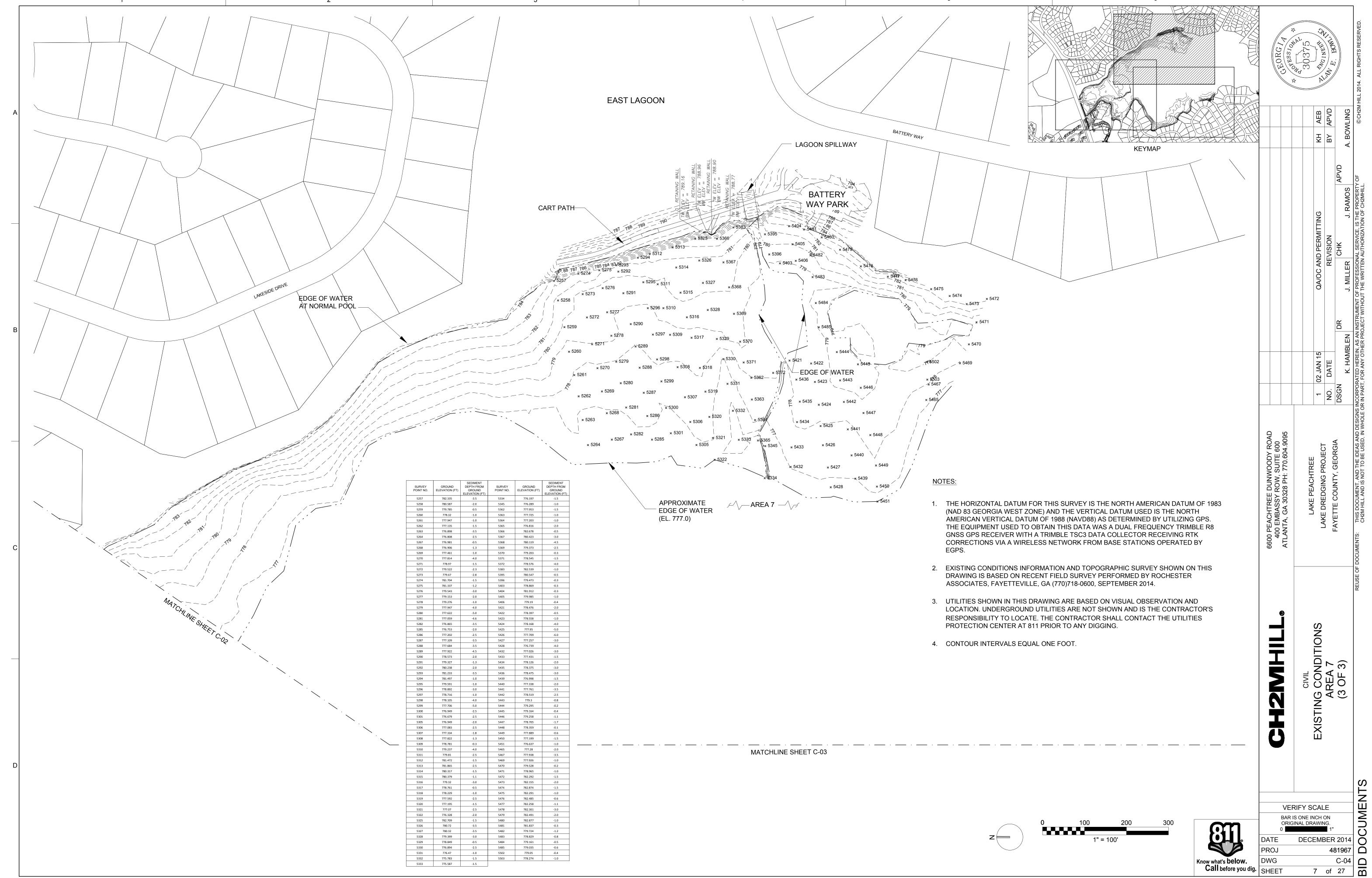
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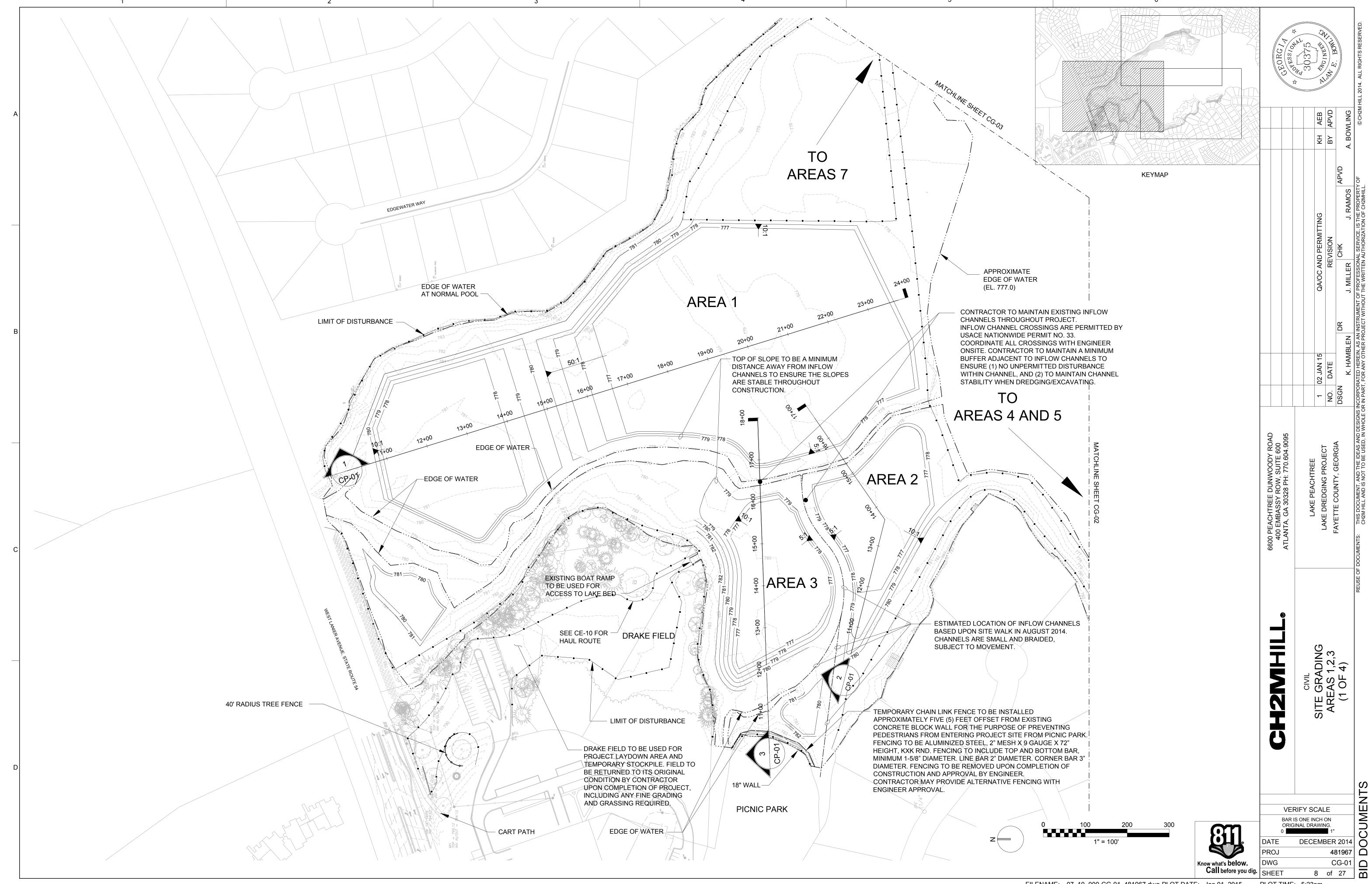
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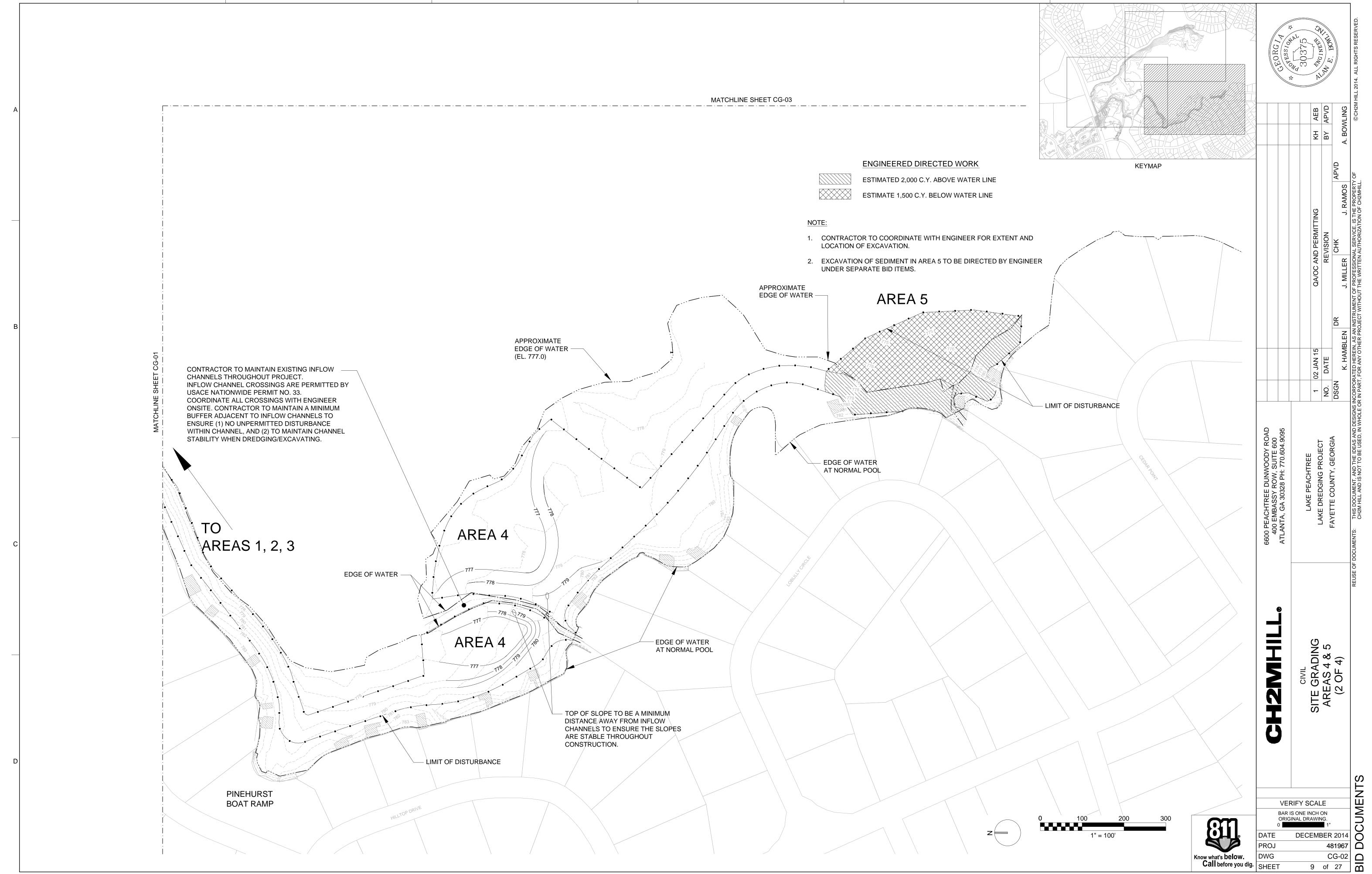


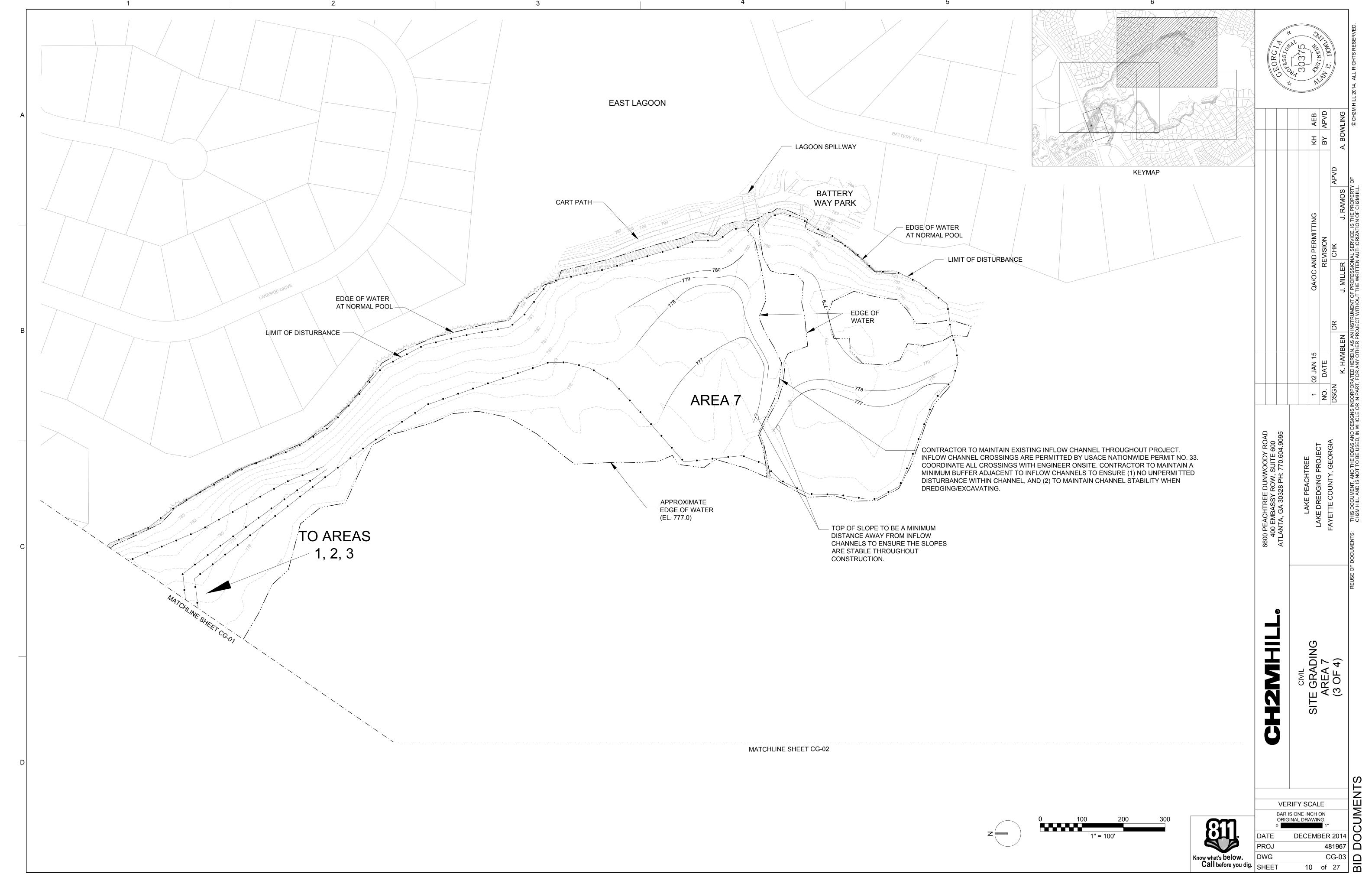


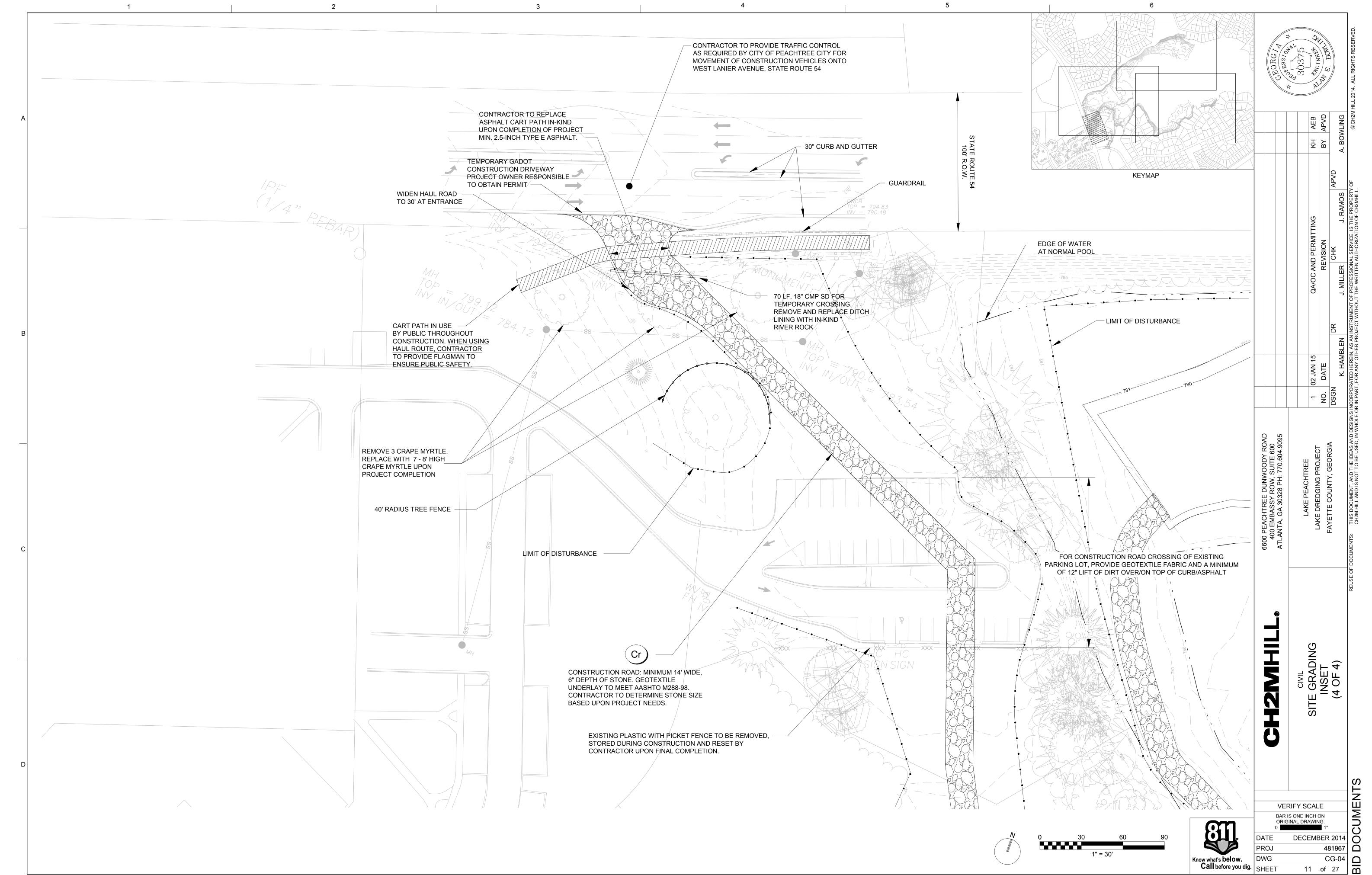


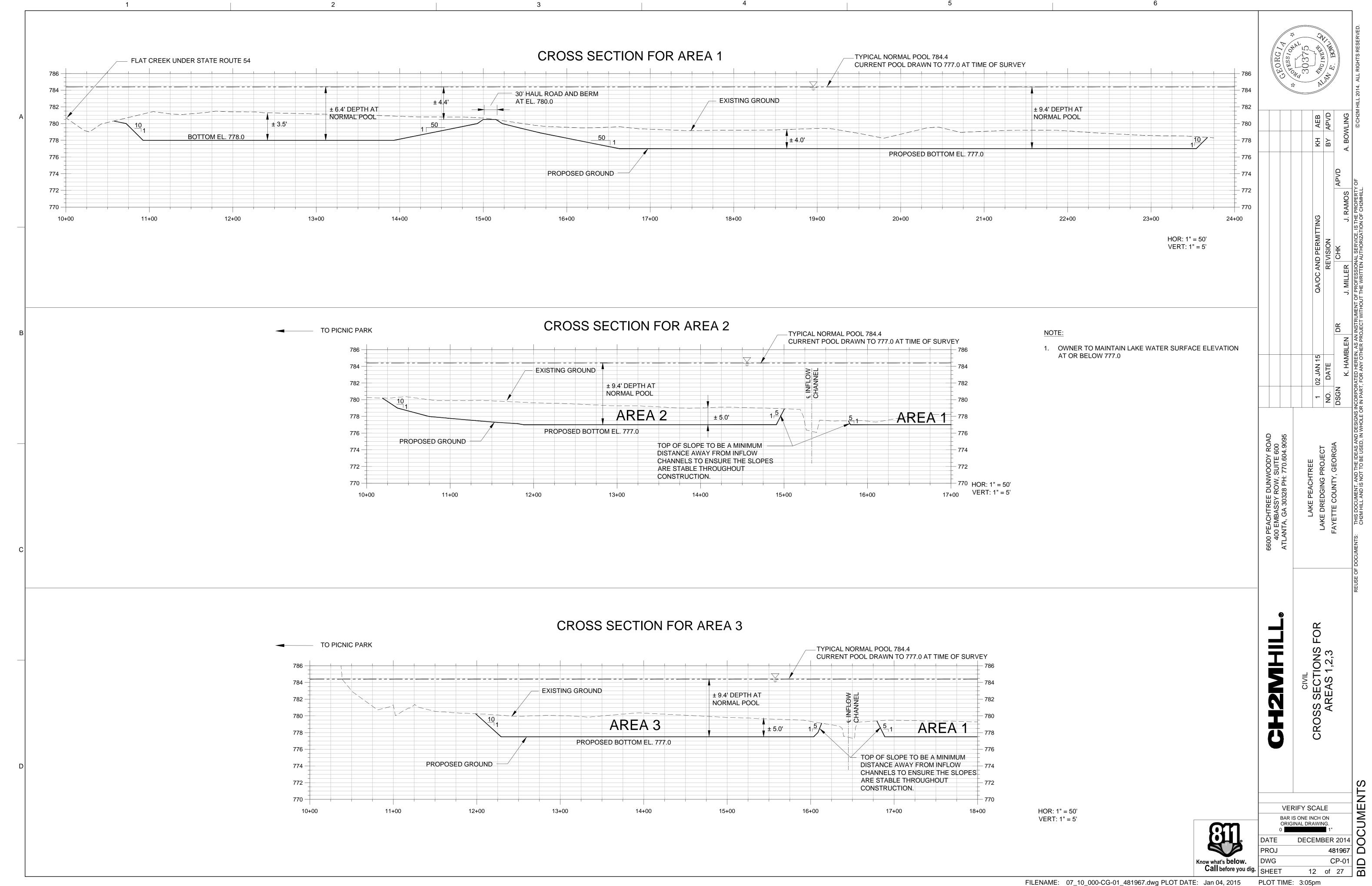












GEORGIA UNIFORM CODING SYSTEM

FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES

DESCRIPTION

CODE PRACTICE DETAIL

Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION		T	Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT		(LABEL)	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION		Cr	A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on—site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			An earth channel or dike located above, below or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE		(LABEL)	A flexible conduit of heavy—duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporar and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE		(LABEL)	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION			Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE		Gr (LABEL)	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL		Re (LABEL)	A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETRO FITTING		Rt (LABEL)	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1)	SEDIMENT BARRIER		(INDICATE TYPE)	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP	*		An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN		Sd3	A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sd4)	TEMPORARY SEDIMENT TRAP			A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
Sk	FLOATING SURFACE SKIMMER		Sk) (LABEL)	A buoyant device that releases/drains water from the surface of sediment ponds, traps, o basins at a controlled rate of flow.
Spb	SEEP BERM		(LABEL)	Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chamber with the employment of intermediate dikes.

SOIL SURVEY DATA

MAP UNIT NAME

ALTAVISTA SANDY LOAM

APPLING SANDY LOAM

APPLING SANDY LOAM

ASHLAR SANDY LOAM

MAP UNIT SYMBOL

AmB

AmC

SLOPE (%)

0 - 3

2 - 6

6 - 10

MAP UNIT SYMBOL

CfC2

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING		Sr) (LABEL)	A temporary bridge or culvert—type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION		St	A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING		Su	A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN		Te	A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Тр	TOPSOILING	in the state of th	(SHOW STRIPING AND STORAGE AREAS)	The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION	\odot	(DENOTE TREE CENTERS)	To protect desirable trees from injury during construction activity.
Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE		Bf (LABEL)	Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)	为在3在3在44×4444	Cs	Planting vegetation on dunes that are denuded artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)	10, 11, 10, 10, 10, 10, 10, 10, 10, 10,	Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS	() KM	Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
FI-Co	FLOCCULANTS AND COAGULANTS		FI-Co	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PERM VEGETATION)		Sb	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Тас	TACKIFIERS AND BINDERS	G	Tac	Substance used to anchor straw or hay mulch by causing the organic material to bind together.

SOIL SURVEY DATA

MAP UNIT NAME

CECIL SANDY LOAM

CECIL SANDY LOAM

CECIL SANDY CLAY LOAM

GWINNETT SANDY CLAY LOAM

GaSWCC (Amended - 2013)

6 - 10

CERTIFICATIONS

DESIGN PROFESSIONAL

I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

SUPERVISION.

I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100001. THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPs WITHIN 7 DAYS AFTER INSTALLATION.

ALAN BOWLING

GEORGIA REGISTERED ENGINEER NO:30375 LEVEL II CERTIFIED DESIGN PROFESSIONAL NO: .000000432

PRIMARY PERMITTEE

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT CERTIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

LEE POPE FAYETTE COUNTY WATER SYSTEM COMPANY: 245 McDONOUGH ROAD

ADDRESS: FAYETTEVILLE, GA 30214 CITY/ST/ZIP: (770) 320-6016

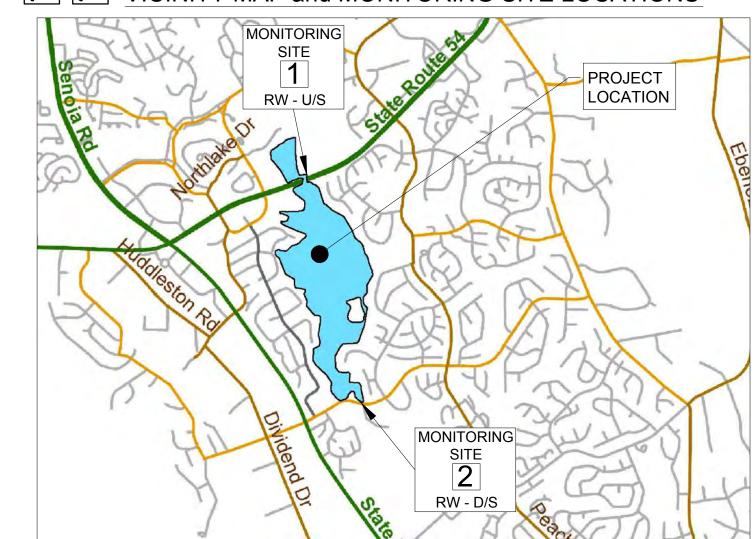
LEVEL IA CERT NO: **SIGNATURE**

✓27 ANTICIPATED CONSTRUCTION SCHEDULE

START: FEB 2015 COMPLETION: JUNE 2015

			MONTHS		
ACTIVITY	1	2	3	4	5
INITIAL SITE CONTROLS (TREE PROTECTION, PERIMETER CONTROLS, SILT FENCE)					
CLEARING, GRUBBING, ROUGH GRADING					
STRUCTURE INSTALLATION, FINAL GRADING					
EROSION CONTROL MAINTENANCE, TEMPORARY VEGETATION					
PERMANENT VEGETATION AND LANDSCAPING					
SITE CLOSURE AND CLEAN-UP					

▼10 **▼**33 VICINITY MAP and MONITORING SITE LOCATIONS



SOIL SURVEY DATA SLOPE (%) SLOPE (%) MAP UNIT SYMBOL MAP UNIT NAME PACOLET SANDY LOAM 2 - 6 10 - 25 6 - 10 WATER

WEHADKEE SOILS

WH

PROJECT INFORMATION

Primary Permittee FAYETTE COUNTY WATER SYSTEM 245 McDONOUGH ROAD, FAYETTEVILLE, GA 30314 LEE POPE Company Name: Address: Contact Name:

Phone Number: (770) 320-6016 24-Hour Contact

ALAN BOWLING, P.E., CH2M HILL

Phone Number: (770) 604-9095 Property Information: LAKE PEACHTREE, PEACHTREE CITY, GA 30269

Tax Map Number Construction Entrance Coordinates: Latitude: Longitude:

Total Property Area: ±250 acres Project Area: Anticipated Area to be Disturbed Initial Phase ±48.5 acres

Construction (intermediate phase)

The Lake Peachtree Dredging Project will include the dredging material from a dry lakebed. The lake has been drawn down from its 225-acre normal pool to a current pool of 105 acres, creating 110 acres of dry lakebed. The project is to be conducted in this dry lakebed, with the exception of one location where wet dredging will occur (Area 5). Primary construction access to the lake would occur from an existing paved driveways/boat ramps while temporary construction access roads located in the dry lakebed (Green Book BMP "Cr", a 'stone haul road') will be used to access dredging areas. Within the lakebed, all equipment would stay within the defined project area.

Receiving Waters
The receiving water of this project is Lake Peachtree on Flat Creek, which is part of the Flint River watershed/basin.

• The receiving water IS an impaired stream segment as defined in the Georgia EPD 305(b)/303(d) list

Stormwater discharges from this project DO NOT discharge into an impaired stream segment, or within 1 mile upstream of, and within the same watershed as, any portion of a BIOTA impaired stream segment. This IS an impaired stream segment, listed in 2014 for DO and fecal coliform violations due to nonpoint

source runoff. The listed segment extends from Lake Peachtree to Line Creek, Peachtree City. A TMDL was completed for DO in 2003. A TMDL Implementation Plan for Sediment HAS NOT been finalized for this segment of creek.

Base Flood Information: ZONE AE 100-Year floodplain is located within project site. 100-year flood elevation: Map Number: 13113 (map revised 09-26-2008)

The site is zoned as OS-P (Open Space Public), and OS-C (Open Space Conservation)

Soils Type: As per NRCS Soil Data Mart, soil types for this project are delineated on sheets CE-07 to CE-15. Soil type legend, with descriptions, is provided on sheet CE-01

The current lake limits are adjacent to the project's disturbed area. to protect the State waters, double row of Sd1-S to be installed. Grading to be excavation only. No fill to be placed adjacent to State waters.

The presence of on-site wetlands has been investigated and it was determined that wetlands were found

All State Waters located on and within 200 feet of the project site have been identified and will be protected by associated State and County protection regulations and buffers.

An undisturbed natural vegetative buffer of fifty (50') feet measured from the point of wrested vegetation along stream banks and twenty-five (25') feet from the point of wrested vegetation along bodies of water Alternative BMPs

A hydrology study is not necessary to support the ES&PC plans for dredging the lake bed. Drainage from off-site to inflow channels that feed the lake does not pass through project limits of construction disturbance. Pre-development and post-development hydrologic conditions will be the same for the lake.

Pre-Development Coefficient: CN=98 Post-Development Coefficient: CN= 98

Temporary sediment basins for treatment of sediment pollution will not be a functional practice for the proposed work of dredging the dry lake bed adjacent to the current lake pool given the topography and high water table. To meet the goals of limiting sediment pollution, the sediment control program will be executed by the contractor in coordination with limiting the extent of active land disturbance to those areas shown in the ES&PC plans. No equipment or construction activity will occur in the current lake pool. However, construction traffic will traverse the inflow channels that drain from areas outside of the lakebed. Disturbance will be minimized for construction access of moving heavy dredging equipment to dredging areas. No dredging activities will occur within these inflow channels.

In addition the process described above, temporary sediment fence shall be installed in strategic upland areas and along the inflow channels to reduce sediment from entering the channels. Temporary and permanent vegetation will be installed throughout the span of the project to reduce sedimentation. The proposed project is upstream of an existing open water impoundment (Lake Peachtree dam), which functions as a permanent sediment basin to protect downstream water bodies from excessive

Notify Engineer (770-604-9095) and Owner (770-320-6016) 72 hours PRIOR TO the beginning of every phase of construction.

REQUIRED NOTES

NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

AMENDMENTS / REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

1. THE PRIMARY, SECONDARY OR TERTIARY PERMITTEES, AS APPLICABLE, SHALL AMEND THEIR PLANS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC

ALL REVISIONS OR AMENDMENTS SHALL BE SUBMITTED TO THE LOCAL ISSUING AUTHORITY

WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT. INCLUDING BUT NOT LIMITED TO WASTE BUILDING MATERIALS, CONSTRUCTION AND DEMOLITION DEBRIS, CONCRETE WASHOUT OR EXCAVATED SEDIMENT

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEMENT OF CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR

ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

Certification Number: 000000432

Issued: 08/10/2008

SURVEYOR:

ROCHESTER & ASSOCIATES 286 HIGHWAY 314 SUITE A FAYETTEVILLE, GA 30214 (770) 716-8123

Georgia Soil and Water GSWCC Conservation Commission <u> Alan E. Bowling</u> Level II Certified Design Professional



FILENAME:22-24 005-C-ES-01 481967.DWG PLOT DATE: Jan 01, 2015

 $S \subseteq O$

AS NOTED **VERIFY SCALE** BAR IS ONE INCH ON ORIGINAL DRAWING

DECEMBER 2014 481967 | CE-01 \ 13 of 27 **m** DENTIFIED IN PART III.A.2. OF THIS PERMIT AND WHICH ARE IN COMPLIANCE WITH PART IV.D.7. (NON-STORM WATER

STORM WATER DISCHARGES FROM CONSTRUCTION SITES THAT THE DIRECTOR (EPD) HAS DETERMINED TO BE OR MAY REASONABLY BE EXPECTED TO BE CONTRIBUTING TO A VIOLATION OF A WATER QUALITY STANDARD.

NO DISCHARGES AUTHORIZED BY THIS PERMIT SHALL CAUSE VIOLATIONS OF GEORGIA'S IN-STREAM WATER QUALITY STANDARDS AS PROVIDED BY THE RULES AND REGULATIONS FOR WATER QUALITY CONTROL, CHAPTER 391-3-6-.03.

✓28 INSPECTIONS (PART IV.B.4.)

EACH INSPECTION.
A REPORT OF EACH INSPECTION THAT INCLUDES THE NAME(S) OF CERTIFIED PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, CONSTRUCTION PHASE (I.E., INITIAL, INTERMEDIATE OR FINAL), MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.A.(5).. OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION PROJECT THAT HAS BEEN PHASED HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALL BE READILY AVAILABLE BY END OF THE SECOND BUSINESS DAY AND/OR WORKING DAY AND SHALL IDENTIFY ALL INCIDENTS OF BEST MANAGEMENT PRACTICES THAT HAVE NOT BEEN PROPERLY INSTALLED AND/OR MAINTAINED AS DESCRIBED IN THE PLAN. WHERE THE REPORT DOES NOT IDENTIFY AN INCIDENT, THE INSPECTION REPORT SHALL CONTAIN A STATEMENT THAT THE BEST MANAGEMENT PRACTICES ARE IN COMPLIANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART V.G.2. OF THIS PERMIT.

SAMPLING

STORMWATER SAMPLING SHALL BE IN ACCORDANCE WITH THE METHODOLOGY IN THE NPDES STORMWATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-98-001, AND THE NPDES GENERAL CONSTRUCTION NO. GAR100001 PREPARED BY THE STATE OF GEORGIA DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL PROTECTION DIVISION.

FREQUENCY

1. THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, SAMPLES MUST BE TAKEN WITHIN FORTY-FIVE (45) MINUTES OF:

THE ACCUMULATION OF THE MINIMUM AMOUNT OF RAINFALL FOR THE QUALIFYING EVENT, IF THE STORM WATER
DISCHARGE TO A MONITORED RECEIVING WATER OR FROM A MONITORED OUTFALL HAS BEGUN AT OR PRIOR TO THE

THE BEGINNING OF ANY STORM WATER DISCHARGE TO A MONITORED RECEIVING WATER OR FROM A MONITORED OUTFALL, IF THE DISCHARGE BEGINS AFTER THE ACCUMULATION OF THE MINIMUM AMOUNT OF RAINFALL FOR THE QUALIFYING EVENT.

QUALIFYING EVENT.

HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THIS PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORM WATER DISCHARGE. SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING EVENTS:

1. FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING DURING NORMAL BUSINESS HOURS* (MONDAY THRU FRIDAY, 8:00 AM TO 5:00 PM AND SATURDAY 8:00 AM TO 5:00 PM, EXCLUDING ALL NON-WORKING FEDERAL HOLIDAYS, WHEN CONSTRUCTION ACTIVITY IS BEING CONDUCTED BY THE PRIMARY PERMITTEE) THAT OCCURS AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE

IN ADDITION TO (A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING DURING NORMAL BUSINESS HOURS* THAT OCCURS EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION, WHICHEVER COMES

AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (A) AND (B) ABOVE, IF BMPS ARE FOUND TO BE PROPERLY DESIGNED, INSTALLED AND MAINTAINED, NO FURTHER ACTION IS REQUIRED. IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS* UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMPS ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED. AND MAINTAINED: AND

EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (B). THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (B) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (C) ABOVE.

*NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND (B) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING AT ANY TIME OF THE DAY OR WEEK.

SAMPLING REQUIREMENTS.
 B.1. THIS PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THIS PERMIT. THIS SECTION IS APPLICABLE TO PRIMARY PERMITTEES WITH A TOTAL PLANNED DISTURBANCE EQUAL TO OR GREATER THAN ONE (1) ACRE AND TERTIARY PERMITTEES WITH A TOTAL PLANNED DISTURBANCE EQUAL TO OR GREATER THAN FIVE (5) ACRES. THIS SECTION IS NOT APPLICABLE TO SECONDARY PERMITTEES. THE FOLLOWING PROCEDURES CONSTITUTE EPD'S GUIDELINES FOR SAMPLING TURBIDITY.
 A. SAMPLING REQUIREMENTS SHALL INCLUDE THE FOLLOWING:
 C.1. A USGS TOPOGRAPHIC MAP, A TOPOGRAPHIC MAP OR A DRAWING (REFERRED TO AS A TOPOGRAPHIC MAP) THAT IS A SCALE EQUAL TO OR MORE DETAILED THAN A 1:24000 MAP SHOWING THE LOCATION OF THE SITE OR THE COMMON DEVELOPMENT;
 C.1.1 THE LOCATION OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER PODIES AS CHOMAN ON A LIGOCIA.

DEVELOPMENT;

1. THE LOCATION OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES AS SHOWN ON A USGS TOPOGRAPHIC MAP, AND ALL OTHER PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES LOCATED DURING MANDATORY FIELD VERIFICATION, INTO WHICH THE STORM WATER IS DISCHARGED AND

2. THE RECEIVING WATER AND/OR OUTFALL SAMPLING LOCATIONS. WHEN THE PERMITTEE HAS CHOSEN TO USE A USGS TOPOGRAPHIC MAP AND THE RECEIVING WATER(S) IS NOT SHOWN ON THE USGS TOPOGRAPHIC MAP, THE LOCATION OF THE RECEIVING WATER(S) MUST BE HAND-DRAWN ON THE USGS TOPOGRAPHIC MAP FROM WHERE THE STORM WATER(S) ENTERS THE RECEIVING WATER(S) TO THE POINT WHERE THE RECEIVING WATER(S) COMBINES WITH THE FIRST BLUE LINE STREAM SHOWN ON THE USGS TOPOGRAPHIC MAP;

THE ANALYTICAL METHOD USED TO COLLECT AND ANALYZE THE SAMPLES INCLUDING QUALITY CONTROL/QUALITY ASSURANCE PROCEDURES. THIS NARRATIVE MUST INCLUDE PRECISE SAMPLING METHODOLOGY FOR EACH SAMPLING I OCATION:

WHEN THE PERMITTEE HAS DETERMINED THAT SOME OR ALL OUTFALLS WILL BE MONITORED, A RATIONALE MUST BE INCLUDED FOR THE NTU LIMIT(S) SELECTED FROM APPENDIX B. THIS RATIONALE MUST INCLUDE THE SIZE OF THE CONSTRUCTION SITE, THE CALCULATION OF THE SIZE OF THE SURFACE WATER DRAINAGE AREA, AND THE TYPE OF RECEIVING WATER(S) (I.E., TROUT STREAM OR SUPPORTING WARM WATER FISHERIES); AND ANY ADDITIONAL INFORMATION EPD DETERMINES NECESSARY TO BE PART OF THE PLAN. EPD WILL PROVIDE WRITTEN NOTICE TO THE PERMITTEE OF THE INFORMATION NECESSARY AND THE TIME LINE FOR SUBMITTAL.

MPLE TYPE.

ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-8-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.

1. SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.

2. SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.

3. LARGE MOUTH, CLEAN AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.

4. MANUAL, AUTOMATIC OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED USING A DIRECT READING, PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.

SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV.E.

FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S), OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S). SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORM WATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES:

THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE
CONFLUENCE OF THE FIRST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE
FARTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED
WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING
WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR

WATER(S) MAY NEED TO BE TAKEN AND THE ARTHMETIC AVERAGE OF THE TORDIDITY OF THESE SAWILLS SOLD TO THE UPSTREAM TURBIDITY VALUE.

THE UPSTREAM TURBIDITY VALUE.

THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE

DOWNSTREAM TURBIDITY VALUE.
IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING

WATER(S) OR THE STORM WATER OUTFALL CHANNEL(S). CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORM WATER CHANNEL THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.
THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS.

THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS.
PERMITTEES DO NOT HAVE TO SAMPLE SHEETFLOW THAT FLOWS ONTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT. FOR PURPOSES OF THIS SECTION, STABILIZED SHALL MEAN, FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES AND AREAS LOCATED OUTSIDE THE WASTE DISPOSAL LIMITS OF A LANDFILL CELL THAT HAS BEEN CERTIFIED BY EPD FOR WASTE DISPOSAL, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR EQUIVALENT PERMANENT STABILIZATION MEASURES (SUCH AS THE USE OF RIP RAP, GABIONS, PERMANENT MULCHES OR GEOTEXTILES) HAVE BEEN USED. PERMANENT VEGETATION SHALL CONSIST OF: PLANTED TREES, SHRUBS, PERENNIAL VINES; A CROP OF PERENNIAL VEGETATION APPROPRIATE FOR THE TIME OF TABLET CROP OF ANNUAL VEGETATION AND ASSESSMENT OF TABLET CROP REPENNIAL SARPHORDED THE PECION. FINAL STABILIZATION APPRIES TO EACH

PEREININAL VEGETATION APPROPRIATE FOR THE TIME OF YEAR AND REGION; OR A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET CROP PERENNIALS APPROPRIATE FOR THE REGION. FINAL STABILIZATION APPLIES TO EACH PHASE OF CONSTRUCTION.

ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY (INCLUDING GENERALLY ACCEPTED SAMPLING METHODS, LOCATIONS, TIMING, AND FREQUENCY) AS TO ACCURATELY REFLECT WHETHER STORM WATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS III.D.3. OR III.D.4., WHICHEVER IS APPLICABLE.

₹29 REPORTING (PART IV.E.)

 A. THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD.
 B. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. JPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE

C. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS.

2. SAMPLING AND ANALYSIS OF ANY STORM WATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD.

3. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G.2.

5. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART V.G.3.

3. ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:

4. THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;

5. G.1. THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING AND MEASUREMENTS;

6. G.2. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;

6. THE TIME(S) ANALYSES WERE INITIATED;

6. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;

6. REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;

6. THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;

6. RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU;" AND

6. CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.

4. ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE APPLICABLE PERMITTELES SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READOLLY AVAILABLE AT A DESIGNATTED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI. IF AN ELECTRONIC SUBMITTAL IS PROVIDED BY EPD THEN THE WRITTEN CORRESPONDENCE MAY BE SUBMITTED ELECTRONICALLY; IF REQUIRED, A PAPER COPY MUST ALSO BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL OR SIMI

✓ 30 RETENTION OF RECORDS (PART IV.F.)

THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI:

1. A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD;

A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT;
THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART

A.3. THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS PERMIT;

A.4. A COPY OF ALL SAMPLING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;

A.5. A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.A. OF THIS PERMIT;

A.6. A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2. OF THIS PERMIT; AND

A.7. DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.A.(2). OF THIS PERMIT.

COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, INSPECTION REPORTS, SAMPLING REPORTS (INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION) OR OTHER REPORTS REQUESTED BY THE EPD, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE. WRITTEN NOTIFICATION TO THE PERMITTEE.

▶ 32 NPDES Monitoring Sites

TOTAL BASIN

AREA (ACRES)

10.044

11,934

TYPE OF

RW-U

RW-D

Receiving Water - Downstream of Site

allowable increase in turbidity (NTUs) between the downstream and

Site Area < 10 acres = 75 NTUs.

Site Area > 10 acres = 50 NTUs

Site Area > 50 acres = 20 NTUs

< 5 Sq.Mi. Surface Water Drainage Area Site Area < 50 acres = 25 NTUs.</p>

Receiving Water - Upstream of Site ** Per the Erosion and Sedimentation Act of 1975 (OCGA 12-7), the

LOCATION

33° 24' 8.74" N

84° 34' 39.45" W

33° 23' 3.45" N

84° 34' 20.86" W

Inflow to Site

Trout Waters

Outfall from Site

upstream sampling points in the receiving waters:
Warm Waters 25 NTU
Trout Waters 10 NTU

Per NPDES Permit Appendix B, NTU Limits for Outfalls

Waters Supporting Warm Water Fisheries
< 5 Sq.Mi. Surface Water Drainage Area

MONITORING

See sheets CE-01 for site locations

TOTAL BASIN

AREA (SQ.MI.)

15.7

18.6

MONITORING SITE EVALUATIONS AND RECOMMENDATIONS

AREA (ACRES)

N/A

ONSITE BASIN | MONITORING SITE | NTU LIMIT FROM

RECOMMENDED

YES

YES

Certification Number: 000000432

AREAS FROM U.S.G.S. STREAMSTATS

Alan E. Bowling

Level II Certified Design Professional

GSWCC

Issued: 08/10/2008

√ 40 NOTE: DRAINAGE BASIN DELINEATED

DSION AND SEDIMEI CONTROL NOTE (2 OF 4)

AS NOTED **VERIFY SCALE** BAR IS ONE INCH ON ORIGINAL DRAWING.

DECEMBER 2014

481967 |

CE-02 \

Know what's below. Call before you dig.

TYPE OF

RECEIVING

WATERS (TROUT OR WARM

WARM

WARM

Georgia Soil and Water

Conservation Commission

Expires: <u>09/16/2016</u>

DATE **PROJ** DWG **SHEET**

N/A

< MS-1 + 25

- 1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL CONFORM WITH THE GUIDELINES OF THE "MANUAL FOR EROSION
- AND SEDIMENT CONTROL", LATEST EDITION. PRIMARY PERMITTEE MUST SUBMIT NPDES NOTICE OF INTENT (NOI) AT LEAST 14 DAYS PRIOR TO BEGINNING OF LAND
- DISTURBANCE ACTIVITIES. EROSION CONTROL MEASURES AND TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- 4. THE PRIMARY PERMITTEE AND TERTIARY PERMITTEE(S) MUST RETAIN THE DESIGN PROFESSIONAL WHO PREPARED THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN (ES&PC), EXCEPT WHEN THE PERMITTEE HAS REQUESTED IN WRITING AND EPD HAS AGREED TO AN ALTERNATE DESIGN PROFESSIONAL, TO INSPECT THE INSTALLATION OF THE INITIA SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS WHICH THE DESIGN PROFESSIONAL DESIGNED WITHIN SEVEN (7) DAYS AFTER INSTALLATION. THE DESIGN PROFESSIONAL SHALL DETERMINE IF THESE BMPS HAVE BEEN INSTALLED AND ARE BEING MAINTAINED AS DESIGNED. THE DESIGN PROFESSIONAL SHALL REPORT THE RESULTS OF THE INSPECTION TO THE PERMITTEE WITHIN SEVEN (7) DAYS AND THE PERMITTEE MUST CORRECT ALL DEFICIENCIES WITHIN TWO (2) BUSINESS DAYS OF RECEIPT OF THE INSPECTION REPORT FROM THE DESIGN PROFESSIONAL UNLESS WEATHER RELATED SITE
- CONDITIONS ARE SUCH THAT ADDITIONAL TIME IS REQUIRED. EROSION AND SEDIMENT CONTROL WILL BE PERFORMED IN ACCORDANCE WITH THE BMPS SHOWN IN THESE PLANS.
- ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY FIELD INSPECTOR. LAND DISTURBING WILL BE SCHEDULED TO LIMIT EXPOSURE OF BARE SOIL TO EROSIVE ELEMENTS
- CONTRACTOR SHALL INSTALL AND ADD TO EROSION CONTROL MEASURES AS DETERMINED BY THE PROJECT ENGINEER OR
- 9. PRIMARY PERMITTEE RESPONSIBLE TO PROVIDE A DAILY INSPECTION LOG FOR THE BMP INSPECTIONS. LOG TO BE KEPT ONSITE
- 10. THE LOCATION OF SOME EROSION AND SEDIMENT CONTROL MEASURES MAY HAVE TO BE ALTERED FROM THOSE SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION DIFFER FROM THE ONES SHOWN ON THE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH SEDIMENT CONTROL FOR ALL DRAINAGE PATTERNS CREATED DURING VARIOUS STAGES OF CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF
- CONSTRUCTION SHALL BE IMMEDIATELY REPORTED TO THE DESIGN PROFESSIONAL 11. SEDIMENT SHALL NOT BE WASHED INTO INLETS. IT SHALL BE REMOVED FROM THE INLET TRAPS, DISPOSED OF, AND
- STABILIZED IN SUCH A WAY THAT IT WILL NOT ENTER THE 12. SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
- 13. CONSTRUCTION ROAD SHALL BE TOP DRESSED WITH ADDITIONAL GRAVEL PERIODICALLY TO MAINTAIN GRAVEL DEPTH OF 6

POLLUTION CONTROL

- OFF-SITE VEHICLE TRACKING DIRT, SOILS, AND SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED OR ELIMINATED TO THE MAXIMUM EXTENT PRACTICAL. THE FOLLOWING BMPS SHALL BE IMPLEMENTED AS APPROPRIATE CONSTRUCTION EXIT (CO), MULCH (DS1), VEGETATIVE COVER (DS2 / DS3), SPRAY-ON ADHESIVES (TAC), TOPSOILING (TP) AND/OR CONSTRUCTION ROAD STABILIZATION (CR).
- CONTRACTOR SHALL SELECT A DESIGNATED WASTE COLLECTION AREA AND PROVIDE LIDS FOR WASTE CONTAINMENT. SOLID WASTE SHALL BE REMOVED AND DISPOSED OFFSITE AT A REGULAR SCHEDULE.
- 3. ALL WASTEWATER AND FROM CONSTRUCTION ACTIVITIES AND OR CLEANING OPERATIONS SHALL NOT BE DISCHARGED ON THE
- GROUND OR STORMWATER SYSTEM. OFF-SITE VEHICLE TRACKING OF SEDIMENT
- A STABILIZED STONE PAD WILL BE LOCATED AT THE CONSTRUCTION ENTRANCE TO REDUCE TRANSPORT OF MUD FROM THE CONSTRUCTION SITE.
- THE STONE PAD WILL BE PERIODICALLY DRESSED. MUD AND DEBRIS TRACKED OR SPILLED ONTO ROADWAYS WILL BE
- CONTRACTOR WILL CONTROL SURFACE AND AIR MOVEMENT OF DUST BY SPRAYING WATER ONTO DISTURBED SOIL CONCRETE WASH-DOWN
- CONCRETE WASH-DOWN AREA(S) WILL BE PROVIDED FOR CONTRACTOR TO WASH TOOLS, MIXERS, AND HOPPERS
- CONCRETE WILL NOT BE ALLOWED TO BE DUMPED ONSITE.
- WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED. SEE DETAIL WD.

- DURING THE LANDSCAPE INSTALLATION PHASE OF THE PROJECT, THINNING IS ALLOWED AND MAY INCLUDE MANUAL REMOVAL OF NON-SPECIMEN TREES WITHIN THE CRITICAL ROOT ZONE OR DRIPLINE OF THE SPECIMEN TREE. THINNING INCLUDES MANUAL REMOVAL (NO MOTORIZED VEHICLES ALLOWED WITHIN THE CRITICAL ROOT ZONE OF THE SPECIMEN TREE).
- NON-VEGETATIVE MATERIAL TO BE REMOVED MANUALLY. A COMMERCIAL APPLICATOR LICENSE AND A PESTICIDE CONTRACTOR LICENSE ARE REQUIRED BY THE CONTRACTOR IF THE USE OF HERBICIDES ARE NECESSARY FOR THE REMOVAL OF NOXIOUS PLANT MATERIAL
- 4. TEMPORARY AND PERMANENT SEEDING AND PLANTING SHALL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH. ALL THE PERMANENT SEEDED GRASS COVER AREAS SHALL BE REWORKED AND RESEEDED IF 75% GRASS COVER IS NOT ACHIEVED WITHIN 14 DAYS.
- ALL AREAS WHICH HAVE BEEN DISTURBED SHALL BE PERMANENTLY SEEDED BY THE COMPLETION OF CONSTRUCTION. THE SEEDED MIX MUST PROVIDE BOTH LONG TERM AND RAPID GROWTH SEASONAL VEGETATION.

| ♥34| PHASE I – INITIAL PHASE: SITE PREPARATION AND PRE-CONSTRUCTION OPERATIONS

INSTALL / CONSTRUCT ALL BMPS AS PROVIDED ON SHEETS CE-06 to CE-08

- PRIOR TO LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE AREA SITE DEVELOPMENT INSPECTOR.
- THE CONTRACTOR SHALL OBSERVE THE PROJECT SEQUENCE SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO ENSURE THAT LAND STRIPPED OF IT'S NATURAL COVER IS EXPOSED ONLY IN SMALL QUANTITIES.
- THE OWNER AGREES TO PROVIDE AND MAINTAIN OFF-STREET PARKING ON THE SUBJECT PROPERTY DURING THE ENTIRE CONSTRUCTION PERIOD.
- NO STAGING AREAS, MATERIAL STORAGE, CONCRETE WASH OUT AREAS, OR DEBRIS BURNING AND BURIAL HOLES SHALL BE LOCATED WITHIN 500 FEET OF DESIGNATED TREE PROTECTION AREAS.
- A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE AT ALL TIMES PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, LIMITS OF LAND DISTURBANCE SHALL CLEARLY AND ACCURATELY BE DEMARCATED WITH STAKES, RIBBONS OR OTHER APPROPRIATE MEANS, AND SHALL BE DEMACATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE LIMITS INDICATED ON THE APPROVED
- PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY TO OR EXIT FROM THE SITE OR ONTO ANY PUBLIC ROADWAY.
- THE FOLLOWING INITIAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY OTHER CONSTRUCTION
- 8.1. THE CONSTRUCTION EXIT SHALL BE PLACED AS SHOWN ON THE PLANS.
- IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION EXIT, ALL PERIMETER EROSION CONTROL AND STORMWATER MANAGEMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE CLEARING PHASE EROSION CONTROL
- TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITY WITHIN SEVEN (7) DAYS AFTER INSTALLATION OF INITIAL EROSION CONTROL MEASURES, THE SITE CONTRACTOR SHALL SCHEDULE AN INSPECTION BY THE PROJECT DESIGN PROFESSIONAL. NO OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE PROJECT PROFESSIONAL APPROVES THE INSTALLATION OF SAID EROSION CONTROL MEASURES. IF UNFORSEEN CONDITIONS EXIST IN THE FIELD THAT WARRANT ADDITIONAL EROSION CONTROL MEASURES, THE CONTRACTOR MUST CONSTRUCT ANY ADDITIONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE PROJECT PROFESSIONAL DURING
- 10. AFTER APPROVAL OF INITIAL EROSION CONTROL INSTALLATION, THE CONTRACTOR MAY PROCEED WITH CLEARING AND
- GRUBBING ACTIVITIES. AS CLEARING PERMITS, THE CONTRACTOR SHALL CONSTRUCT SEDIMENT PONDS AS SHOWN ON PLANS. 11. THE CONTRACTOR CAN UTILIZE CLEARED TREES AS BARRIER BRUSH SEDIMENT CONTROL WHERE INITIAL GRADING ACTIVITIES
- 12. NO BURN OR BURY PITS SHALL BE PERMITTED ON THE CONSTRUCTION SITE
- 13. ALL SILT FENCES MUST MEET THE REQUIREMENTS OF SECTION 171-TEMPORARY SILT FENCE FOR THE DEPARTMENT OF
- TRANSPORTATION, STATE OF GEORGIA, STANDARD SPECIFICATIONS, 1983 EDITION. 14. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE. ALL
- DISTURBED AREAS LEFT MULCHED MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION. 15. SEDIMENT AND EROSION CONTROL MEASURES MUST BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE
- MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED. 16. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1"-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM A VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE
- REMOVED IMMEDIATELY 17. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE PROPER
- 18. FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE SITE UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED PLANS

| ♥34| PHASE II - INTERMEDIATE PHASE: CONSTRUCTION ACTIVITIES

INSTALL / CONSTRUCT ALL BMPS AS PROVIDED ON SHEETS CE-09 to CE-11.

DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO ENSURE THAT LAND STRIPPED OF IT'S NATURAL GROUND COVER IS EXPOSED ONLY IN SMALL QUANTITIES, AND THEREFORE LIMITED DURATIONS, BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED.

- 2. EARTHWORK OPERATIONS IN THE VICINITY OF STREAM BUFFERS SHALL BE CAREFULLY CONTROLLED TO AVOID DUMPING OR SLOUGHING INTO THE BUFFER AREAS.
- EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION, AND ALTER THE LOCATION OF EROSION CONTROL DEVICES ACCORDINGLY. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE DESIGN PROFESSIONAL IMMEDIATELY
- 4. THE CONTRACTOR SHALL ESTABLISH BARRIERS AT THE TOP OF ALL SLOPES UNDER CONSTRUCTION. CUT AND FILL SLOPES
- STORM DRAIN OUTLET PROTECTION SHALL BE PLACED AT ALL OUTLET HEADWALLS AS SOON AS THE HEADWALL IS
- ALL DRAINAGE SWALES AND GRADED AREAS SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCHED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY
- 7. THE CONTRACTOR SHALL MAINTAIN THE SEDIMENT POND UNTIL PERMANENT GROUNDCOVER IS ESTABLISHED. SEDIMENT
- SHALL BE CLEANED OUT OF THE POND WHEN IT REACHES ONE THIRD OF THE DEPT OF THE BASIN. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE. ALL
- DISTURBED AREAS LEFT MULCHED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING. SEDIMENT AND EROSION CONTROL MEASURES MUST BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.
- 10. CONTRACTOR SHALL INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE
- 11. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1"-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM A VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE
- 12. FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES, WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.

13. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL AT ALL TIMES BE THE RESPONSIBILITY OF THE CONTRACTOR.

1 PHASE III - FINAL PHASE: CONSTRUCTION COMPLETION AND FINAL STABILIZATION

INSTALL / CONSTRUCT ALL BMPS AS PROVIDED ON SHEETS CE-12 to CE-14 & SUBMIT NOTICE OF TERMINATION.

- ALL ROADWAY AND PARKING SHOULDERS SHOULD BE GRASSED AS SOON AS FINAL GRADE IS ACHIEVED. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE
- MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.
- FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.
- 4. UPON COMPLETION OF THE PROJECT AND RECEIPT OF THE CERTIFICATE OF COMPLETION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND DISPOSE OF THEM UNLESS NOTED OTHERWISE ON PLANS.
- 5. PERMANENT VEGETATION SHALL BE INSTALLED AT THE END OF THE CONSTRUCTION PHASE, AFTER FINAL GRADES HAVE BEEN
- UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND PROPERLY DISPOSE OF THEM, UNLESS NOTED ON THE PLANS. SILT FENCE WILL REMAIN ONSITE UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. PERMANENT PLANTINGS SHALL BE APPLIED TO THE ENTIRE SITE
- ALL CONSTRUCTION EXIT MATERIAL SHALL BE NEATLY REMOVED AND DISTURBED AREAS RE-VEGETATED TO MATCH PRE-CONSTRUCTION CONDITIONS, OR BETTER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SEEDED AREAS UNTIL VEGETATIVE COVER IS ESTABLISHED. SHOULD ANY SEEDED AREA FAIL TO GERMINATE OR WASHING OF ANY AREAS OCCUR (REQUIRING RE-ESTABLISHMENT OF SEEDING), THE CONTRACTOR SHALL REPLACE ANY LOST SOIL MATERIAL AND RE-SEED AND RE-MULCH WITHIN 48 HOURS OF NOTIFICATION OF SUCH FAILURES AT THE CONTRACTOR'S OWN EXPENSE.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES UNTIL PERMANENT STABILIZATION OF THE SITE IS ACHIEVED. IF IMPLEMENTATION OF THE PLANS DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AS DIRECTED BY THE PROJECT ENGINEER TO CONTROL OR ELIMINATE THE SEDIMENT SOURCE.

POLLUTION CONTROL

- 1. THE MOST EFFICIENT METHOD OF DUST CONTROL FOR THE SITE SHALL BE DETERMINED EXPERIMENTALLY AND MAY CONSIST OF TEMPORARY MEASURES SUCH AS MULCHES, VEGETATIVE COVER, SPRAY-ON ADHESIVES, TILLAGE, IRRIGATION, BARRIERS
- AND/OR THE APPLICATION OF CALCIUM CHLORIDE. 2. LIKEWISE, IF THE ACTION OF THE VEHICLE TRAVELING OVER THE GRAVEL CONSTRUCTION EXIT PAD DOES NOT SUFFICIENTLY REMOVE THE MUD FROM VEHICLE TIRES, THE TIRES SHOULD BE WASHED PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND PROVISIONS THAT INTERCEPT THE SEDIMENT-LADEN RUNOFF AND DIRECT IT INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. WASHOUT OF THE DRUM OF A CONCRETE TRUCK AT THE CONSTRUCTION SITE IS PROHIBITED.
- 4. CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF VEHICLES WILL ONLY BE ALLOWED IN A DESIGNATED AREA PROVIDED FOR THIS PURPOSE, AS SHOWN ON THE DRAWINGS. 4.A. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE FOLLOWED:
 - CONTAIN ALL WASH WATER ON SOIL, IN A BOWL SHAPED AREA CREATED IN THE DESIGNATED WASH AREA TO PREVENT THE WASH WATER FROM FLOWING FROM THE WASHOUT AREA;
 - USE THE MINIMUM AMOUNT OF WATER TO WASH DOWN THE TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF VEHICLES;
 - 4.A.3. REMOVE ANY CONCRETE SEDIMENT FROM THE AREA SURROUNDING THE WASHOUT AREA BEFORE IT HARDENS; AND 4.A.4. REMOVE ALL CONCRETE RESIDUE FROM THE DESIGNATED AREA ONCE IT HAS HARDENED.

STORMWATER DISCHARGE POLLUTANT REDUCTION

- ALL POLLUTANTS FROM WASTE DISPOSAL PRACTICES, SOIL ADDITIVES, REMEDIATION OF SPILLS AND LEAKS OF PETROLEUM PRODUCTS, CONCRETE TRUCK WASHOUT, ETC., SHOULD ANY OF THESE OCCUR, WILL BE CONTROLLED BY THE
- IMPLEMENTATION OF APPROPRIATE BEST MANAGEMENT PRACTICES. THE SITE WILL BE IN COMPLIANCE WITH ALL APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.
- 3. PRODUCT SPECIFIC PRACTICES: 3.A. PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ONSITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORMWATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE
- CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS. PAINTS/FINISHES/SOLVENTS - ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCTS WILL NOT BE DISCHARGED TO THE STORMWATER COLLECTION SYSTEM. EXCESS PRODUCT MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- CONCRETE TRUCK WASHING NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONSITE
- FERTILIZER/HERBICIDES THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED
- BUILDING MATERIALS NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES.

STORMWATER MANAGEMENT

THE FOLLOWING IS A DESCRIPTION OF MEASURES THAT MAY BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED.

- STORMWATER RETENTION / DETENTION STRUCTURES FLOW ATTENUATION BY USE OF OPEN VEGETATED SWALES AND NATURAL DEPRESSIONS
- INFILTRATION OF RUNOFF ON-SITE VELOCITY DISSIPATION DEVICES SHALL BE PLACED AT DISCHARGE LOCATIONS AND ALONG THE LENGTH OF ANY OUTFALL CHANNEL FOR THE PURPOSE OF PROVIDING A NON-EROSIVE VELOCITY FLOW FROM THE STRUCTURE TO A WATER COURSE SO THAT THE NATURAL PHYSICAL AND BIOLOGICAL CHARACTERISTICS AND FUNCTIONS ARE MAINTAINED AND PROTECTED [E.G. NO SIGNIFICANT CHANGES IN THE HYDROLOGICAL REGIME OF THE RECEIVING WATER(S).]
- 5. SEQUENTIAL SYSTEMS (WHICH COMBINE SEVERAL PRACTICES)
- STRUCTURAL MEASURES SHOULD BE PLACED ON UPLAND SOILS TO THE DEGREE ATTAINABLE
- THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CWA
- THE ESPCP ONLY ADDRESSES THE INSTALLATION OF STORMWATER MANAGEMENT MEASURES, AND NOT THE ULTIMATE OPERATION AND MAINTENANCE OF SUCH STRUCTURES AFTER THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND
- THE SITE HAS UNDERGONE FINAL STABILIZATION. OPERATORS ARE ONLY RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF STORMWATER MANAGEMENT MEASURES

PRIOR TO FINAL STABILIZATION OF THE SITE, AND ARE NOT RESPONSIBLE FOR MAINTENANCE AFTER STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY HAVE BEEN ELIMINATED FROM THE SITE.

SPILL CLEANUP AND CONTROL PRACTICES

- 1. LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.
- MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS
- 3. SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO
- PREVENT FUTURE SPILLS. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. 4. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS
- 4.A. FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.

FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED

- FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT
- FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL
- AGENCIES WILL BE CONTACTED AS REQUIRED. THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1,320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL

HAZARDOUS WASTES

- ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL, STATE AND/OR FEDERAL
- REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS.
- THE JOB SITE SUPERINTENDENT, WHO WILL ALSO BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED, WILL INSTRUCT SITE PERSONNEL IN THESE PRACTICES.
- MATERIAL SAFETY DATA SHEETS (MSDS'S) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE WILL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE
- AN MSDS WILL BE MAINTAINED IN THE ESPCP FILE AT THE JOB SITE CONSTRUCTION TRAILER OFFICE.
- EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES WILL BE INSTRUCTED ON THE USE OF MSDS SHEETS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING,
- PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES. THE CONTRACTOR WILL IMPLEMENT THE SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN FOUND WITHIN THIS ESPCP AND WILL TRAIN ALL PERSONNEL IN THE PROPER CLEANUP AND HANDLING OF SPILLED MATERIALS.
- NO SPILLED HAZARDOUS MATERIAL OR HAZARDOUS WASTES WILL BE ALLOWED TO COME IN CONTACT WITH STORMWATER DISCHARGES. IF SUCH CONTACT OCCURS. THE STORMWATER DISCHARGE WILL BE CONTAINED ON SITE UNTIL APPROPRIATE MEASURES IN COMPLIANCE WITH STATE AND FEDERAL REGULATIONS ARE TAKEN TO DISPOSE OF SUCH CONTAMINATED
- STORMWATER. 8. IT SHALL BE THE RESPONSIBILITY OF THE JOB SITE SUPERINTENDENT TO PROPERLY TRAIN ALL PERSONNEL IN THE USE OF THE SPCC PLAN.

SANITARY WASTES

- A MINIMUM OF ONE PORTABLE SANITARY UNIT WILL BE PROVIDED TO EVERY TEN (10) WORKERS ON THE SITE. ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONE TIME PER WEEK BY A LICENSED PORTABLE FACILITY PROVIDER IN COMPLETE COMPLIANCE WITH LOCAL AND STATE REGULATIONS.
- 2. ALL SANITARY WASTE UNITS WILL BE LOCATED IN AN AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORMWATER DISCHARGE IS NEGLIGIBLE. ADDITIONAL CONTAINMENT BMP'S MUST BE IMPLEMENTED, SUCH AS GRAVEL BAGS OR SPECIALLY DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASE, TO PREVENT WASTES FROM CONTRIBUTING TO STORM WATER DISCHARGES. THE LOCATION OF WASTE UNITS MUST BE IDENTIFIED ON THE EROSION CONTROL PLAN GRADING
- PHASE BY THE CONTRACTOR ONCE THE LOCATIONS HAVE BEEN DETERMINED. 3. SANITARY SEWER WILL BE PROVIDED BY MUNICIPAL AUTHORITY AT THE COMPLETION OF THE PROJECT

SAFETY PROTECTION

1. CONSTRUCTION ACTIVITIES WILL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE LAWS, RULES, AND REGULATIONS GOVERNING HEALTH AND SAFETY OF HUMAN BEINGS AND THE ENVIRONMENT.

BMP's FOR PETROLEUM CHEMICAL SPILLS AND LEAKS:

- 1. PAINT AND/OR OTHER CHEMICALS SHALL BE STORED IN SECURED FACILITIES WITH RESTRICTED ACCESS TO EMPLOYEES
- 2. CLEANUP AND DISPOSAL OF THIS MATERIAL SHALL BE IN ACCORDANCE WITH ALL RECOGNIZED LOCAL AND FEDERAL
- REQUIREMENTS. ALL DISPOSAL SHALL BE TO APPROVED OFF-SITE WASTE FACILITIES CLASSIFIED TO ACCEPT THAT MATERIAL. ALL PETROLEUM PRODUCTS SHALL BE STORED AND USED IN AN AREA WITH THE LEAST FORESEEABLE IMPACT IF A
- CATASTROPHIC EVENT SHOULD OCCUR. EMERGENCY CONTACT NUMBERS AND PROCEDURES FOR SPILLS SHALL BE 4. DRIP PANS WILL BE AVAILABLE FOR VEHICLES AND EQUIPMENT TO PREVENT OIL AND OTHER PETROLEUM PRODUCTS FROM
- SPILLING ONTO SOIL OR WATER.

SECONDARY CONTAINMENT IS REQUIRED FOR PETROLEUM AND OIL STORAGE TANKS.

- 6. INVENTORY OF PRODUCTS AND CORRESPONDING MATERIAL SAFETY DATA SHEETS (MSDS) WILL BE KEPT ON THE JOB SITE AT NO PRODUCT WASTE OR EXCESS OF ANY KIND WILL BE DUMPED OR DISPOSED TO THE GROUND, INCLUDING BUT NOT LIMITED TO, PAINT, PAINT PRIMMER, PAINT STRIPPER, SOLVENTS, ACIDS, BASES, OILS, GREASES, ADHESIVES, GLUES, PASTES,
- SEALANTS, SOLDER, CAULKING, GROUT, PUTTY, WAXES, SHEET ROCK, INSULATION, ACETATE, COOLANT, CORROSION INHIBITOR, CLEANING COMPOUNDS, HERBICIDES, TERMITICITES, FUNGICIDE, WEED KILLERS, PESTICIDE, ETC. ALL PETROLEUM STORAGE CONTAINERS SHALL BE COVERED WITH PLASTIC SHEETING OR BE LOCATED UNDER A TEMPORARY ROOF.

AS NOTED

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CE-03 \

Know what's below.

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING DECEMBER 2014 **PROJ** DWG 15 of 27 | **m** SHEET

FILENAME:22-24_005-C-ES-01_481967.DWG PLOT DATE: Jan 01, 2015

Georgia Soil and Water

<u> Alan E. Bowling</u>

Certification Number: 000000432

lssued<u>: 08/10/2008</u>

Level II Certified Design Professional

Conservation Commission

Expires: <u>09/16/2016</u>

Call before you dig.

Table 6-6.1 Fertilizer Requirements for Soil Surface Application

Fertilizer Rate

(lbs./acre)

1000

Varieties

Common

Tifway

Tifgreen

Tiflawn

Kentucky

Fertilizer Type

(lbs./acre)

10-10-10

Bermudagrass

Tall Fescue

Types of

Species

Cool

Season

Grasses

Warm

Season

Grasses

Table 6-6.2 Sod Planting Requirements

Table 6-6.3 Fertilizer Requirements for Sod

First

Second

Maintenance

First

Second

Maintenance

DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

DEFINITION

Applying plant residues or other suitable materials, produced on the site if possible,

CONDITIONS

Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six months, but it shall be applied at the appropriate depth, depending on the material used, anchored, and have a continuous 90% cover or greater of the soil surface. Maintenance shall be required to maintain appropriate depth and 90% cover. Temporary vegetation may be employed instead of mulch if the area will remain undisturbed for less than six months. If an area will remain undisturbed for greater than six months, permanent vegetative techniques shall be employed.

MULCI	MULCHING RATE								
MATERIAL	RATE	DEPTH							
STRAW	2.0 TON/ACRE	2" - 4"							
HAY	2.5 TON/ACRE	2" - 4"							
WOOD WASTE: CHIPS, SAWDUST, BARK		2" - 3"							
Polyethylene Film	Secure w/ soil and anchors								

SPECIFICATIONS

MULCHING WITHOUT SEEDING

This standard applies to grades or cleared areas where seedings may not have a suitable growing season to produce an erosion retardant cover, but can be stabilized with a mulch cover.

Site Preparation

Grade to permit the use of equipment for applying and anchoring mulch. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.

Loosen compact soil to a minimum depth of 3 inches.

Mulching Materials Select one of the following materials and apply at the depth indicated:

Dry straw or hay shall be applied at a depth of 2 to 4 inches providing complete soil coverage. One advantage of this material is easy

Wood waste (chips, sawdust or bark) shall be applied at a depth of 2 to 3 inches. Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion control costs. Cutback asphalt (slow curing) shall be applied at 1200 gallons per acre (or 1/4 gallon per sq.yd.). Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and reused.

Applying Mulch
When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.

- Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by mechanicalequipment. If the area will eventually be covered with perennial vegetation, 20-30 pounds of nitrogen per acre in addition to the normal amount shall be
- applied to offset the uptake of nitrogen caused by the decomposition of the organic mulches. Cutback asphalt shall be applied uniformly. Care should be taken in areas of pedestrian traffic due to problems of 'tracking in' or damage to
- shoes, clothing, etc.
 Apply polyethylene film on exposed areas.

Anchoring Mulch

Straw or hay mulch can be pressed into the soil with a disk harrow with the disk set straight or with a special "packer disk." Disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position. Straw or hay mulch shall be anchored immediately after application. Straw or hay mulch spread with special blower-type equipment may be anchored with emulsified asphalt (Grade AE-5 or SS-1). The asphalt emulsion shall be sprayed onto the mulch as it is ejected from the machine. Use 100 gallons of emulsified asphalt and 100 gallons of water per ton of mulch. Tackifers and binders can be substituted for emulsified asphalt. Please refer to specification Tb -Tackifers and Binders. Plastic mesh or netting with mesh no larger than one inch by one inch shall be installed according to manufacturer's

Netting of the appropriate size shall be used to anchor wood waste. Openings of the netting shall not be larger than the average size of the

Polyethylene film shall be anchor trenched at the top as well as incrementally as necessary.

Ds2

DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

DEFINITION

The establishment of temporary vegetative cover with fast growing seedings for seasonal protection on disturbed or denuded areas.

CONDITIONS

Temporary grassing, instead of mulch, can be applied to rough graded areas that will be exposed for less than six months. Temporary vegetative measures should be coordinated with permanent measures to assure economical and effective stabilization. Most types of temporary vegetation are ideal to use as companion crops until the permanent vegetation is established.

SPECIFICATIONS Grading and Shaping

Excessive water run-off shall be reduced by properly designed and installed erosion control practices such as closed drains, ditches, dikes, diversions, sediment barriers and others.

No shaping or grading is required if slopes can be stabilized by hand-seeded vegetation or if hydraulic seeding equipment is to be used.

When a hydraulic seeder is used, seedbed preparation is not required. When using conventional or handseeding, seedbed preparation is not required if the soil material is loose and not sealed by rainfall.

When soil has been sealed by rainfall or consists of smooth cut slopes, the soil shall be pitted, trenched or otherwise scarified to provide a place for seed to lodge and germinate

Lime and Fertilizer

Agricultural lime is required unless soil tests indicate otherwise. Apply agricultural lime at a rate of one ton per acre. Graded areas require lime application. Soils can be tested to determine if fertilizer is needed. On reasonably fertile soils or soil material, fertilizer is not required. For soils with very low fertility, 500 to 700 pounds of 10-10-10 fertilizer or the equivalent per acre (12-16 lbs./1,000 sq. ft.) shall be applied. Fertilizer should be applied before land preparation and incorporated with a disk, ripper or chisel.

Select a grass or grass-legume mixture suitable to the area and season of the year. Seed shall be applied uniformly by hand, cyclone seeder, drill, cultipacker seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or cultipacker seeders should normally place seed one-quarter to one-half inch deep. Appropriate depth of planting is ten times the seed diameter. Soil should be "raked" lightly to cover seed with soil if seeded by hand.

Mulching

Temporary vegetation can, in most cases, be established without the use of mulch. Mulch without seeding should be considered for short term protection. Refer to Ds1 - Disturbed Area Stabilization (With Mulching Only).

During times of drought, water shall be applied at a rate not causing runoff and erosion. The soil shall be thoroughly wetted to a depth that will insure germination of the seed. Subsequent applications should be made when needed

Georgia Soil & Water C	onservation	Commiss	ion	•		•		•	•		•	•	•	•	
Manual for Erosion and Sedi					ded	201	14)								
Table 6-4.1 - Plants, planting	grates and pla	nting dates	for	TE	MI	POF	RAI	RY	co	VE	R	or (CON	MP	ANION CROPS
Major Land Resource Area (
	Broadca	st Rates				F	Plan	ting	z Da	ates	*				
		per 1000													
	per acre	sq.ft.												1	
Species	(1bs.)	(lbs.)	J	F	М	Α	М	J	J	Α	S	О	N	D	Remarks
Lovegrass, weeping (Eragrosits curvula)															
alone	4	0.1			_	X	X	_							1,500,000 seed per pound. May last for several years.
in mixtures	2	0.05													Mix with Sericea lespedeza.
Millet, browntop (Panicum fax	ciculatum)														137,000 seed per pound. Quick dense cover. Will
alone	40	0.9				-	X	X	-					1	provide too much competition in mixtures if seeded at
in mixtures	10	0.2													high rates.
Rye (Secale cereale)															
alone	168	3.9								-	X	X	X	-	18,000 see per pound. Quick cover. Drought tolerant an
in mixtures	28	0.6													winterhardy.
Ryegrass, annual (Lolium temulentum)				_							l _v	v	X	$ _{\mathbf{v}}$	227,000 seed per pound. Dense cover. Very competitive
alone	40	0.9			-						<u> ^</u>	<u> </u>	<u></u>	<u> ^</u>	and is <u>not</u> used in mixtures.
* 'X' are optimum dates; '-' are	permissible bu	it marginal o	date	s											



DISTURBED AREA STABILIZATION (WITH PERMANENT SEEDING)

DEFINITION

The planting of perennial vegetation such as trees, shrubs, vines, grasses, or legumes on exposed areas for final permanent stabilization. Permanent perennial vegetation shall be used to achieve final stabilization.

Permanent perennial vegetation is used to provide a protective cover for exposed areas including cuts, fills, dams, and other denuded areas.

SPECIFICATIONS

Grading and Shaping

1. Grading and shaping may not be required where hydraulic seeding and fertilizing equipment is to be used. Vertical banks shall be sloped to enable plant establishment.

When conventional seeding and fertilizing are to be done, grade and shape where feasible and practical, so that equipment can be used safely and efficiently during seedbed preparation, seeding, mulching and maintenance of the vegetation.

Concentrations of water that will cause excessive soil erosion shall be diverted to a safe outlet. Diversions and other treatment practices shall

Seedbed Preparation

Seedbed preparation may not be required where hydraulic seeding and fertilizing equipment is to be used. When conventional seeding is to be used, seedbed preparation will be done as follows:

Tillage at a minimum, shall adequately loosen the soil to a depth of 4 to 6 inches; alleviate compaction; incorporate lime and fertilizer; smooth and firm the soil; allow for the proper placement of seed, sprigs, or plants; and allow for the anchoring of straw or hay mulch if a disk is to be

Tillage may be done with any suitable equipment.

conform with the appropriate standards and specifications.

illage should be done on the contour where feasible On slopes too steep for the safe operation of tillage equipment, the soil surface shall be pitted or trenched across the slope with appropriate hand tools to provide two places 6 to 8 inches apart in which seed may lodge and germinate. Hydraulic seeding may also be used.

Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dibble planting. For nursery stock plants, holes shall be large enough to accommodate roots without crowding.

Where pine seedlings are to be planted, subsoil under the row 36 inches deep on the contour four to six months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.

Mix the seed (innoculated if needed), fertilizer, and wood cellulose or wood pulp fiber mulch with water and apply in a slurry uniformly over the area to be treated. Apply within one hour after the mixture is made. Conventional Seeding

Seeding will be done on a freshly prepared and firmed seedbed. For broadcast planting, use a cultipacker seeder, drill, rotary seeder, other mechanical seeder, or hand seeding to distribute the seed uniformly over the area to be treated. Cover the seed lightly with 1/8 to 1/4 inch of soil for small seed and 1/2 to 1 inch for large seed when using a cultipacker or other suitable equipment.

No-till seeding is permissible into annual cover crops when planting is done following maturity of the cover crop or if the temporary cover stand is sparse enough to allow adequate growth of the permanent (perennial) species. No-till seeding shall be done with appropriate no-till seeding equipment. The seed must be uniformly distributed and planted at the proper depth.

Individual Plants Shrubs, vines and sprigs may be planted with appropriate planters or hand tools. Pine trees shall be planted manually in the subsoil furrow. Each plant shall be set in a manner that will avoid crowding the roots. Nursery stock plants shall be planted at the same depth or slightly deeper than they grew at the nursery. The tips of vines and sprigs must be at or slightly above the ground surface. Where individual holes are dug, fertilizer shall be placed in the bottom of the hole, two inches of soil shall be added and the plant shall be set in

Mulčh is required for all permanent vegetation applications. Mulch applied to seeded areas shall achieve 75% soil cover. Select the mulching material from the following and apply as indicated:

Dry straw or dry hay of good quality and free of weed seeds can be used. Dry straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at a rate of 2 1/2 tons per acre.

Wood cellulose mulch or wood pulp fiber shall be used with hydraulic seeding. It shall be applied at the rate of 500 pounds per acre.

Drystraw or dry hay shall be applied (at the rate indicated above) after hydraulic seeding.

One thousand pounds of wood cellulose or wood pulp fiber, which includes a tackifier, shall be used with hydraulic seeding on slopes 3/4:1

Sericea lespedeza hay containing mature seed shall be applied at a rate of three tons per acre.

Pine straw or pine bark shall be applied at a thickness of 3 inches for bedding purposes. Other suitable materials in sufficient quantity may be

used where ornamentals or other ground covers are planted. This is not appropriate for seeded areas. When using temporary erosion control blankets or block sod, mulch is not required. Bituminous treated roving may be applied on planted areas on slopes, in ditches or dry waterways to prevent erosion. Bituminous treated

roving shall be applied within 24 hours after an area has been planted. Application ratés and materials must meet Georgia Department of

Wood cellulose and wood pulp fibers shall not contain germination or growth inhibiting factors. They shall be evenly dispersed when agitated in water. The fibers shall contain a dye to allow visual metering and aid in uniform application during seeding.

Applying Mulch
Straw or hay mulch will be spread uniformly within 24 hours after seeding and/or planting. The mulch may be spread by blower-type spreading equipment, other spreading equipment or by hand. Mulch shall be applied to cover 75% of the soil surface.
Wood cellulose or wood fiber mulch shall be applied uniformly with hydraulic seeding equipment.

Anchoring Mulch

Anchor straw or hay mulch immediately after application by one of the following methods: Emulsified asphalt can be (a) sprayed uniformly onto the mulch as it is ejected from the blower machine or (b) sprayed on the mulch

mmediately following mulch application when straw or hay is spread by methods other than special blower equipment.

The combination of asphalt emulsion and water shall consist of a homogeneous mixture satisfactory for spraying. The mixture shall consist f 100 gallons of grade SS-1h or CSS-1h emulsified asphalt and 100 gallons of water per ton of mulch.

Care shall be taken at all times to protect state waters, the public, adjacent property, pavements, curbs, sidewalks, and all other structures from asphalt discoloration. Hay and straw mulch shall be pressed into the soil immediately after the mulch is spread. A special "packer disk" or disk harrow with the

disks set straight may be used. The disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disks shall be dull enough to press the mulch into the ground without cutting it, leaving much of it in an erect position. Mulch shall not be plowed into the soil.

Synthetic tackifiers or binders approved by GDOT shall be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. Refer to Tb - Tackifiers and Binders.

Rye or wheat can be included with Fall and Winter plantings to stabilize the mulch. They shall be applied at a rate of one-quarter to one half

Plastic mesh or netting with mesh no larger than one inch by one inch may be needed to anchor straw or hay mulch on unstable soils and concentrated flow areas. These materials shall be installed and anchored according to manufacturer's specifications.

Irrigation shall be applied at a rate that will not cause runoff.

Lime Application for PERMANENT COVER - DS3 Agricultural lime is required at the rate of one to two tons per acre unless soil tests indicate

* 'X' are optimum dates: '-' are permissible but marginal dates

Georgia Soil & Water Conservation Commission															
Manual for Erosion and Sedimer	Janual for Erosion and Sediment Control in Georgia (amended 2000)														
Table 6-5.2 - Plants, planting rat	able 6-5.2 - Plants, planting rates and planting dates for PERMANENT COVER														
Aajor Land Resource Area (MLRA): Southern Piedmont (P), per Figure 6-4.1															
	Broadea	ast Rates]	Plan	ting	g Da	ites'	*				
		per 1000													
	per acre	sq.ft.													
Species	(lbs.)	(lbs.)	J	F	М	Λ	М	J	J	Λ	S	О	N	D	Remarks
Bermuda, common (Cynodon daet	ylon) - Hul	led													
alone	10	0.2			-	X	X	-							1.787,000 see per pound. Quick cover. Low growing and sod forming, Full sun, Goo
with other perennials	6	0.1													for athletic fields.
Bermuda, common (Cynodon daet	ylon) - Unh	ulled													
alone	10	0.2	X	X								X	X	X	Plant with winter annuals.
with other perennials	6	0.1													Plant with Tall fescue.
															Drought tolerant, Full sun or partial shade. Effective adjacent to concrete and in
Centipede (Eremochloa ophuiroid	es)		X	X	X	X	X						X	X	concentrated flow areas. Irrigation is needed until fully established. Do not plant nea
	Block S	Sod Only													pastures. Winterhardy as far north as Athens and Atlanta.
Fescue, tall (festuca arundinacea)															227,000 seed per pound. Use alone only on better sites. Not for droughty soils. Mix
alone	50	1,1								-	X	X			with perennial lespedezas or Crownvetch. Apply topdressing in spring following fall
with other perennials	30	0.7													plantings. Not for heavy use areas or athletic fields.

Manual for Erosion and Sediment Control in Georgia (amended 2014) Table 6-5.1 - Fertilizer Requirements N Top-Dressing Rate

Georgia Soil & Water Conservation Commission

Species	Year	N-P-K	(lbs./acre)	(lbs./acre)
	First	6-12-12	1500	50-100
Cool season grasses	Second	6-12-12	1000	
	Maintenance	10-10-10	400	30
	First	6-12-12	1500	0-50
Cool season grasses & legumes	Second	0-10-10	1000	
	Maintenance	0-10-10	400	
	First	10-10-10	1300	
Ground covers	Second	10-10-10	1300	
	Maintenance	10-10-10	1100	
Pine Seedlings	First	20-10-5	*	
Charle I agreedona	First	0-10-10	700	
Shrub Lespedeza	Maintenance	0-10-10	700	
Temporary cover crops seeded alone	First	10-10-10	500	30
	First	6-12-12	1500	50-100
Warm season grasses	Second	6-12-12	800	50-100
	Maintenance	10-10-10	400	30
	First	6-12-12	1500	50
Warm season grasses and legumes	Second	0-10-10	1000	
	Maintenance	0-10-10	400	

Ds4

DISTURBED AREA STABILIZATION (WITH SODDING)

DEFINITION

A permanent vegetation using sods on highly erodible or critically

* one 21-gram pellet per seedling placed in the closing hole

CONDITIONS

This application is appropriate for areas which require immediate vegetative covers, drop inlets, grass swales, and waterways with

CONSTRUCTION SPECIFICATIONS INSTALLATION

Bring soil surface to final grade. Clear surface of trash, woody debris, stones and clods larger than 1". Apply sod to soil

surfaces only and not frozen surfaces, or gravel type soils. Topsoil properly applied will help guarantee stand. Don't use topsoil recently treated with herbicides or soil sterilants.

Mix fertilizer into soil surface. Fertilize based on soil tests or Table 6-6.1. For fall planting of warm season species, half the fertilizer should be applied at planting and the other half in the

Agricultural lime should be applied based on soil tests or at a rate of 1 to 2 tons per acre.

INSTALLATION

- Lay sod with tight joints and in straight lines. Don't overlap joints. Stagger joints and do not stretch sod.
- On slopes steeper than 3:1, sod should be anchored with wooden or biodegradable pins or other approved methods. Installed sod should be rolled or tamped to provide good
- contact between sod and soil Irrigate sod and soil to a depth of 4" immediately after
- Sod should not be cut or spread in extremely wet or dry Irrigation should be used to supplement rainfall for a minimum of 2-3 weeks.

- Sod selected should be certified. Sod grown in the general area of the project is desirable.
- nachine cut and contain 3/4" ±1/4" of soil, not ncluding shoots or thatch.
- Sod should be cut to the desired size within ±5%. Torn or uneven pads should be rejected.
- Sod should be cut and installed within 36 hours of digging. Avoid planting when subject to frost heave or hot weather if rrigation is not available.
- The sod type should be shown on the plans or installed according to Table 6-6.2. See Figure 6-4.1 for your Resource

MAINTENANCE

- Re-sod areas where an adequate stand of sod is not obtained.
- New sod should be mowed sparingly. Grass height should not be cut less than 2"-3" or as specified.
- Apply one ton of agricultural lime as indicated by soil test or Fertilize grasses in accordance with soil tests or Table 6-6.3.

DUST CONTROL ON DISTURBED AREAS

DEFINITION

Controlling surface and air movement of dust on construction sites, roads, and demolition sites.

CONDITIONS

This practice is applicable to areas subject to surface and air movement of dust where on and off-site damage may occur without treatment.

METHOD AND MATERIALS

A. TEMPORARY METHODS

Mulches. See standard Ds1 - Disturbed Area Stabilization (With Mulching Only). Synthetic resins may be used instead of asphalt to bind mulch material. Refer to standard Tb-Tackifiers and Binders. Resins such as Curasol or Terratack should be used according to manufacturer's recommendation

Vegetative Cover. See standard Ds2 - Disturbed Area Stabilization (With Temporary Seeding Spray-on Adhesives. These are used on mineral soils (not effective on muck soils). Keep traffic off these areas. Refer to standard

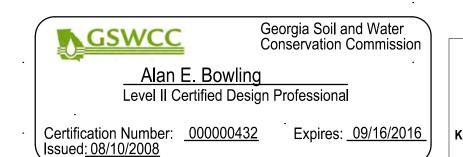
b-Tackifiers and Binders Tillage. This practice is designed to roughen and bring clods to the surface. It is an emergency measure which should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows,

and similar plows are examples of equipment which may produce the desired effect. Irrigation. This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet. Repeat as needed. Barriers. Solid board fences, snow fences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in

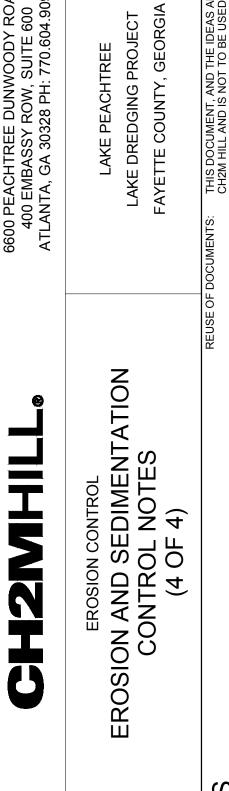
Calcium Chloride. Apply at rate that will keep surface moist. May need retreatment.

PERMANENT METHODS Permanent Vegetation: See standard Ds3 -Disturbed Area Stabilization (With Permanent Vegetation). Existing trees and large shrubs may afford valuable protection if left in place. opsoiling: This entails covering the surface with less erosive soil material. See standard Tp - Topsoiling.

Stone: Cover surface with crushed stone or coarse gravel. See standard Cr-Construction Road Stabilization.







FILENAME:22-24_005-C-ES-01_481967.DWG PLOT DATE: Jan 01, 2015

Resource Area | Growing Season Warm Weather

Season

Fall

Cool Weather

Nitrogen Top

ressing Rate

(lbs./acre)

50-100

30

50-100

50-100

30

(lbs./sq.ft.)

.025

M-L,P,C

P,C

P,C

P,C

M-L,P

Rate

(lbs./acre

1500

1000

400

1500

800

400

Fertilizer

(N-P-K)

6-12-12

6-12-12

10-10-10

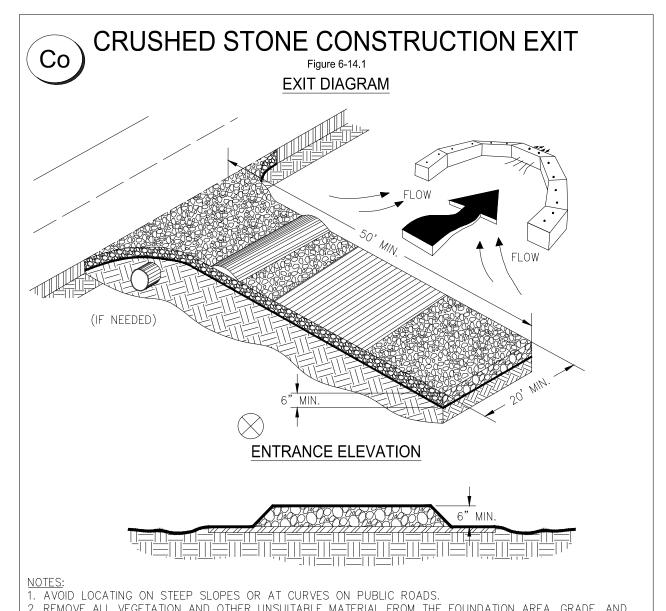
6-12-12

6-12-12

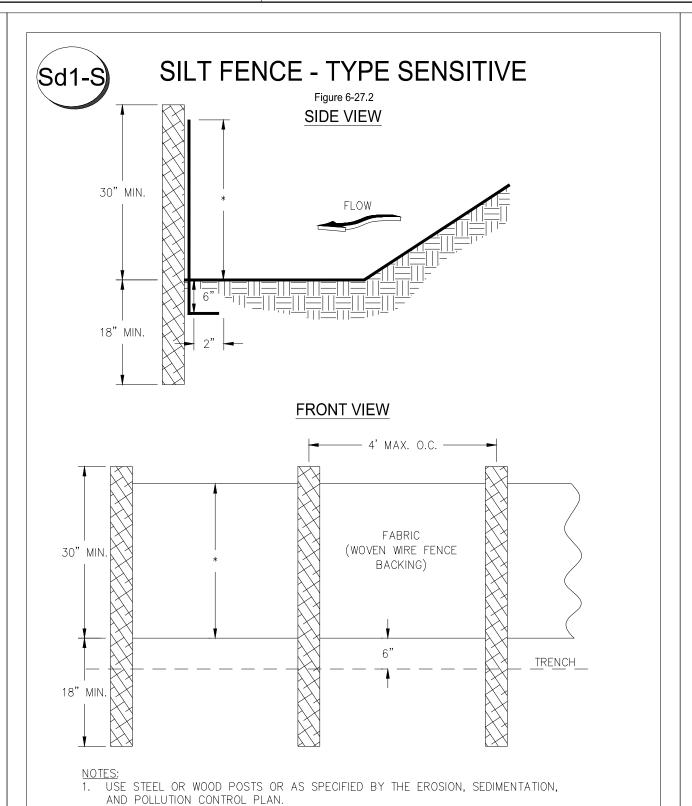
10-10-10

AS NOTED

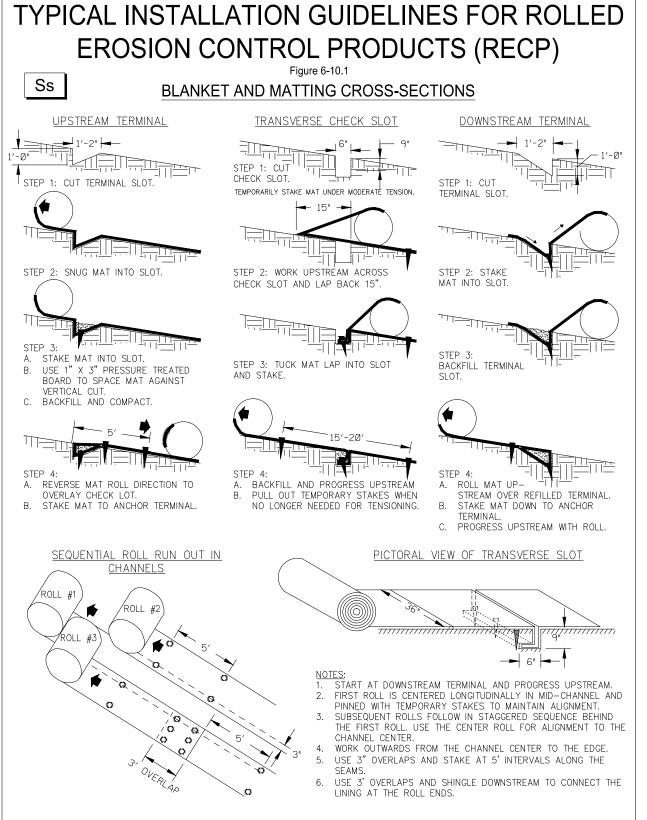
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING DECEMBER 2014 DATE **PROJ** 481967 | CE-04 | DWG 16 of 27 | <u>m</u> SHEET

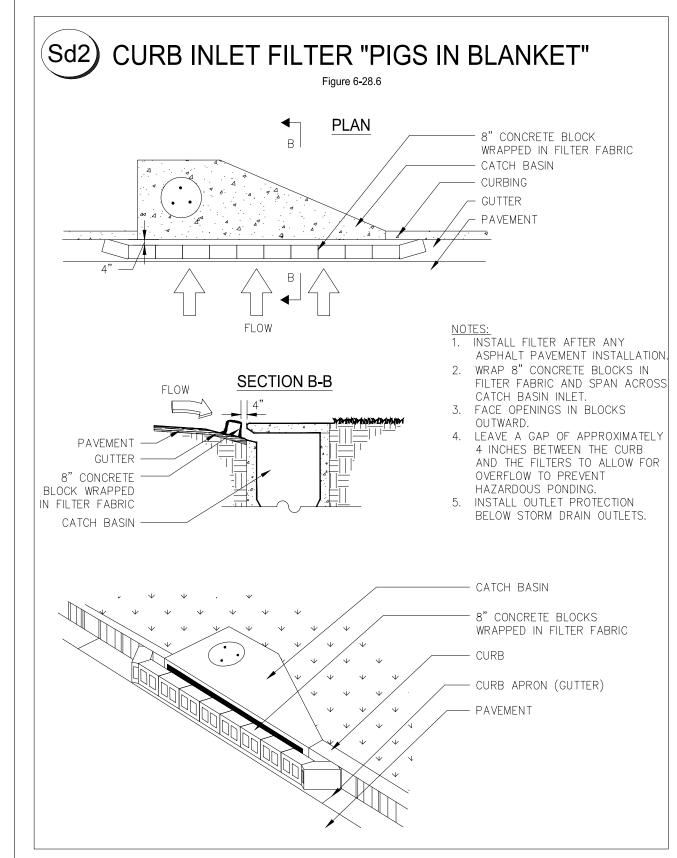


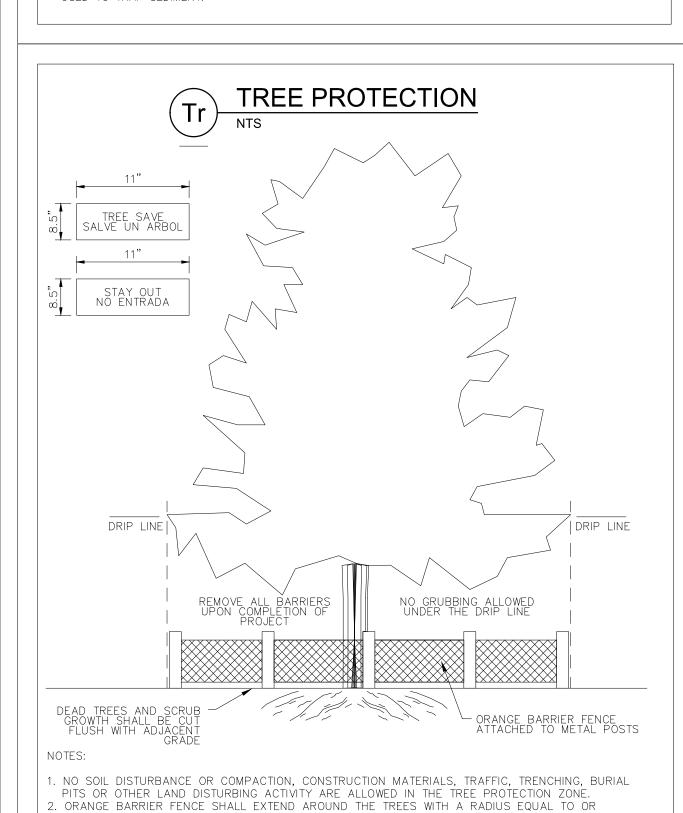
- 2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE. 3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
- 4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6". 5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'. 6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
- 7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES. 8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
- 9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT
- 10.MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES



2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION







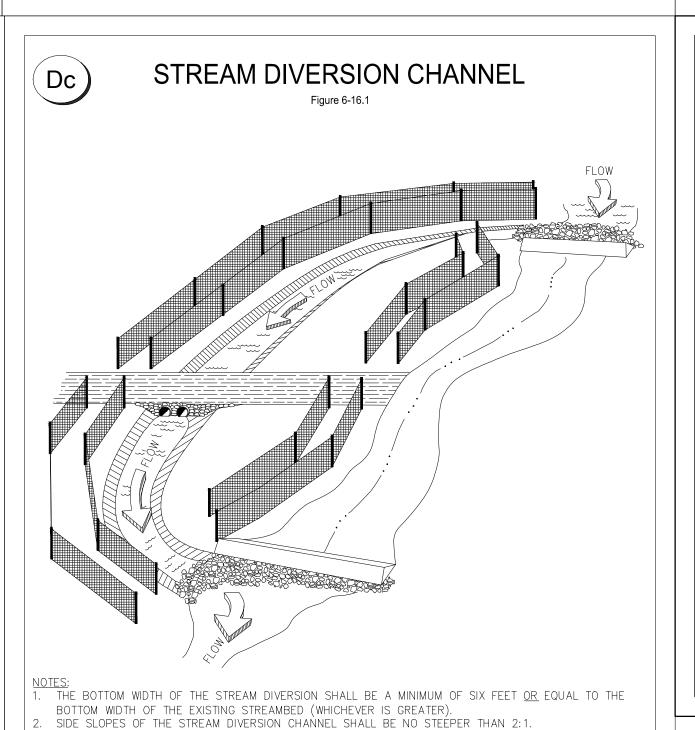
3. ALL ORANGE BARRIER FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING, CONSTRUCTION OR

5. LAMINATED SIGNS TO BE SECURELY ATTACHED TO ORANGE BARRIER FENCE. REPLACE IF NEEDED.

OTHER LAND- DISTURBING ACTIVITY. THEY SHALL BE CONSTRUCTED USING ORANGE SAFETY

GREATER THAN THE DRIP LINE.

4. FENCING MAY BE PLASTIC OR FABRIC.



THE CHANNEL SHALL BE EXCAVATED, CONSTRUCTING PLUGS AT BOTH ENDS.

PREVENT UNFILTERED RUNOFF FROM ENTERING THE STREAM.

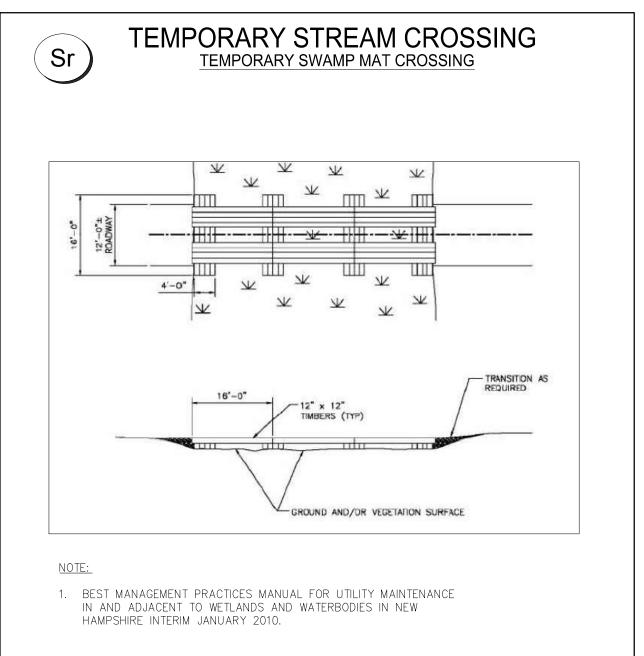
MATERIAL SPECIFIED IN THE PLANS.

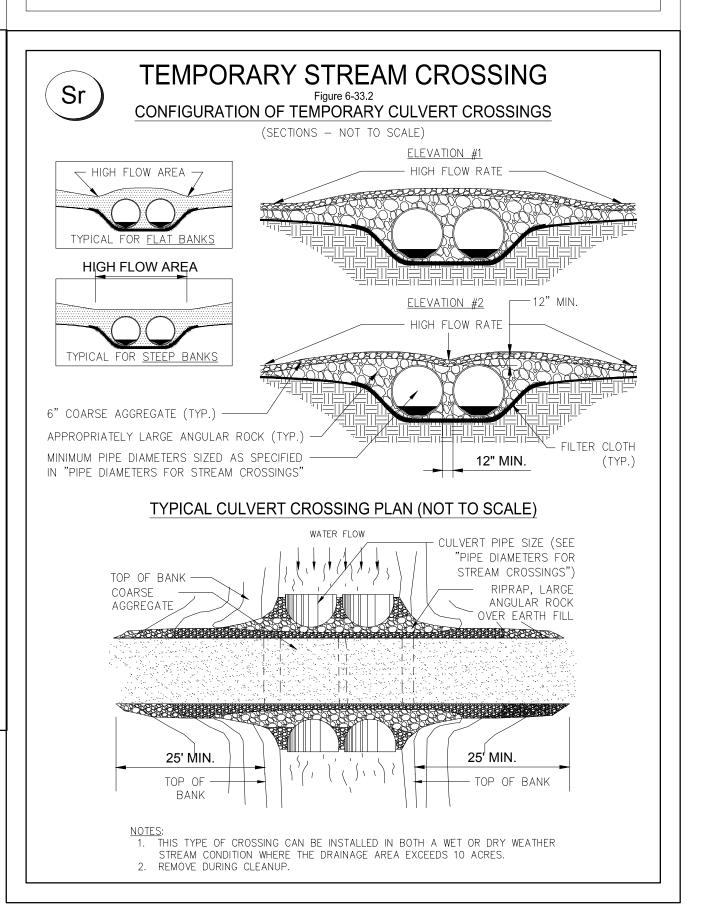
<u>PLUG FIRST).</u>

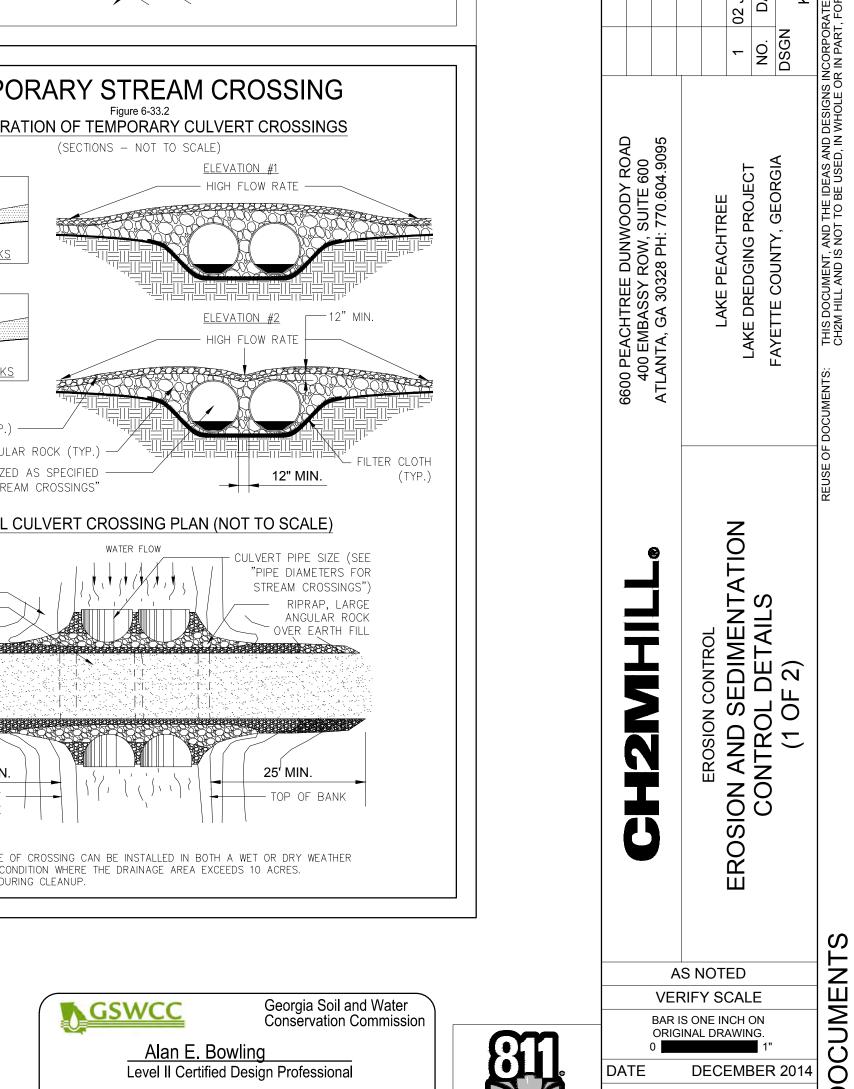
TWO ROWS OF TYPE S SEDIMENT BARRIERS SHALL BE PLACED ALONG THE SIDES OF THE CHANNEL TO

THE CHANNEL SURFACE SHALL BE SMOOTH (TO PREVENT TEARING OF THE LINER) AND LINED WITH THE

THE PLUGS ARE REMOVED WHEN THE LINER INSTALLATION IS COMPLETE (REMOVING THE DOWNSTREAM

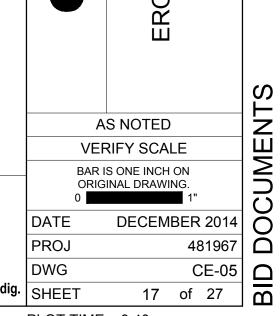


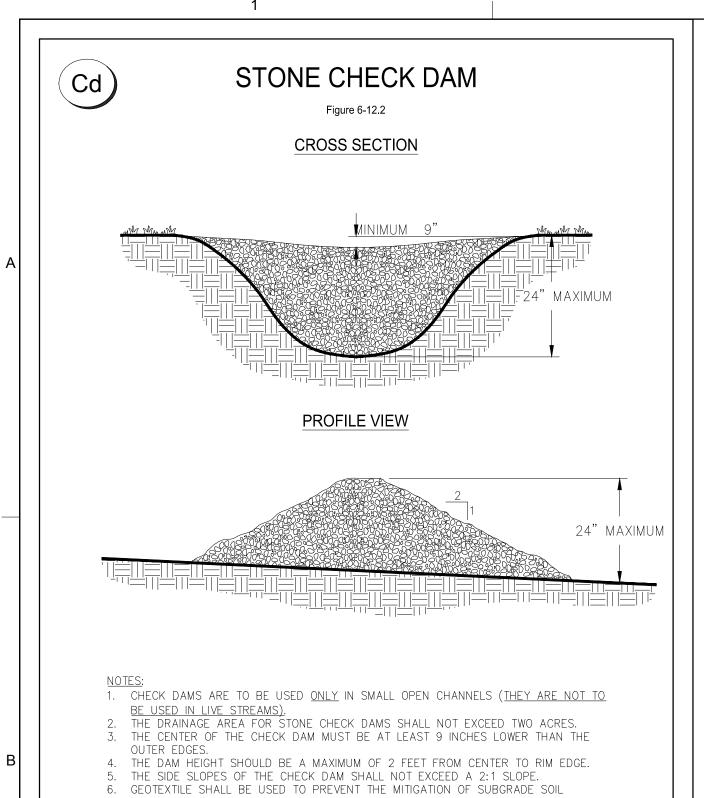


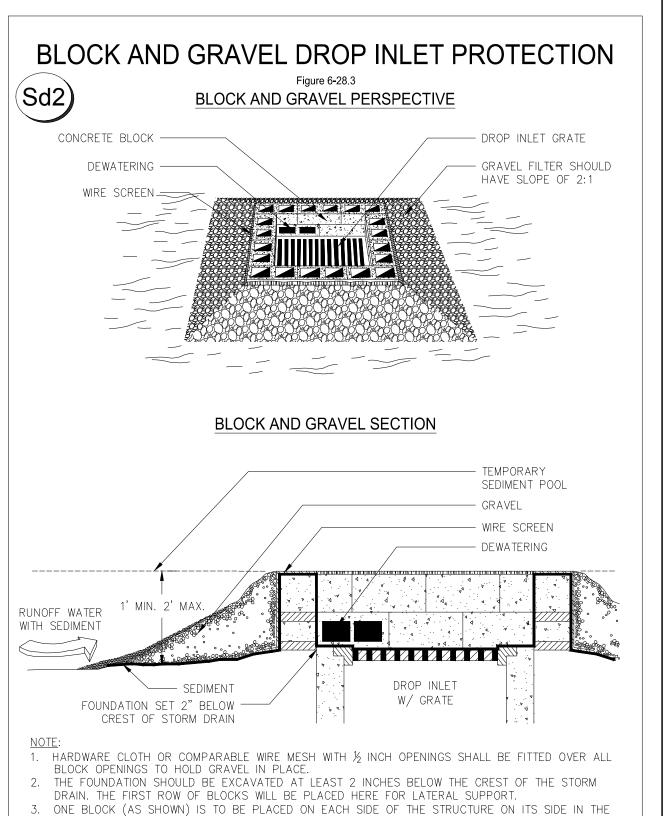












BOTTOM ROW TO ALLOW FOR POOL DRAINAGE.

