# WIGGINS MILL PARK PHASE I - BOAT RAMP for

## CITY OF WILSON

Wilson County, North Carolina AUGUST 2020



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COUNCIL MEMBERS:

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DIRECTOR OF PARKS AND RECREATION:

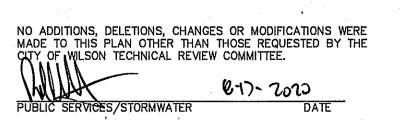
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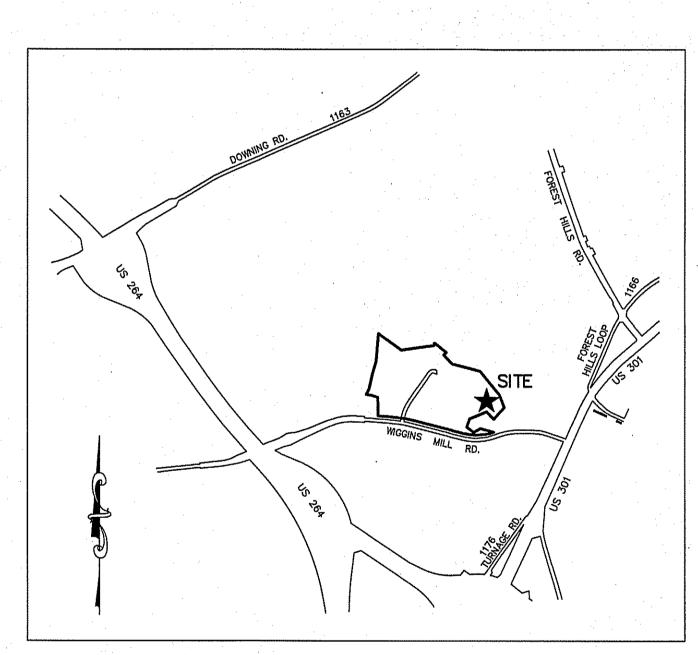
### PREPARED BY:

BARTLETT ENGINEERING & SURVEYING, PC 1906 NASH STREET NORTH WILSON, NORTH CAROLINA 27893-1726









LOCATION MAP

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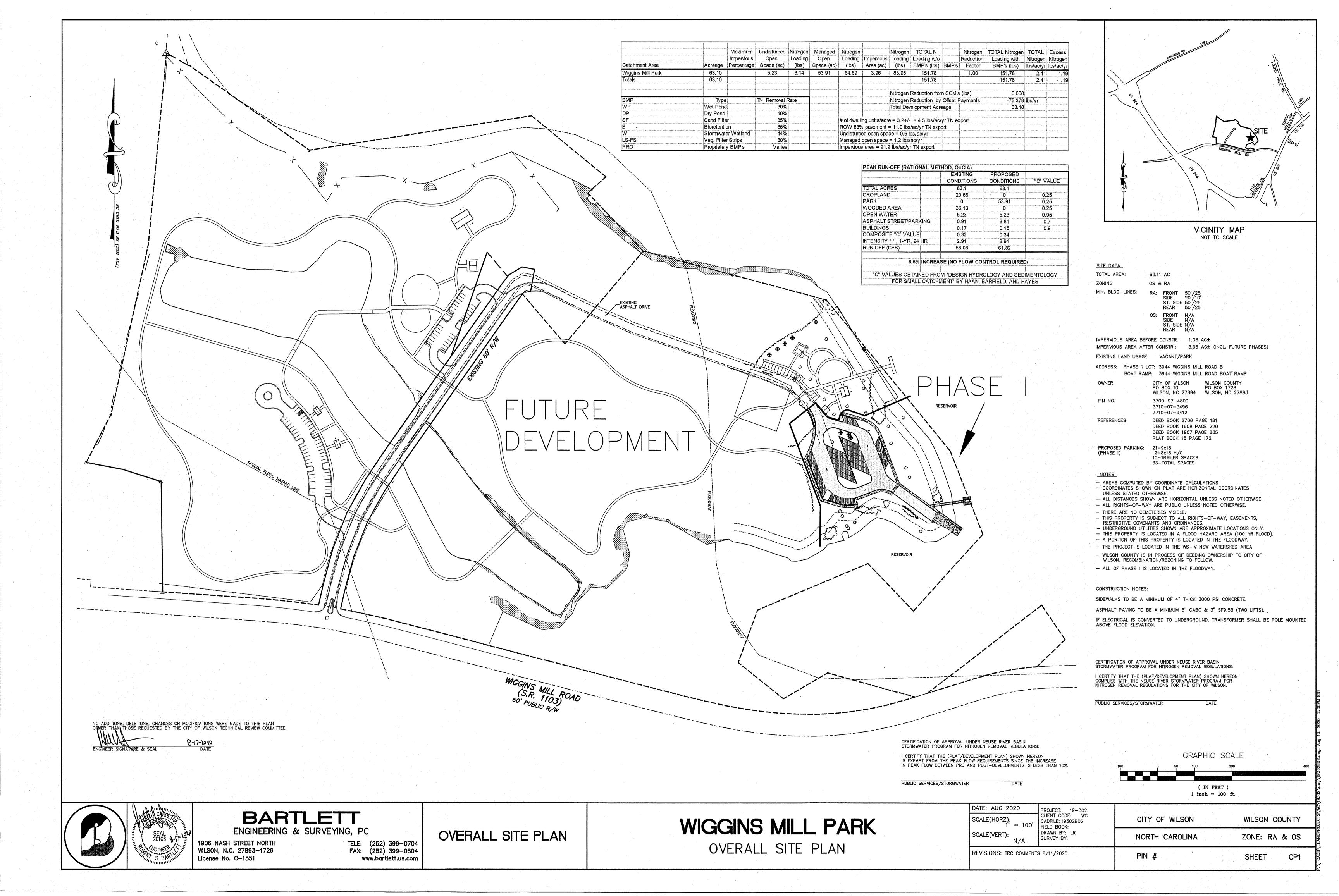
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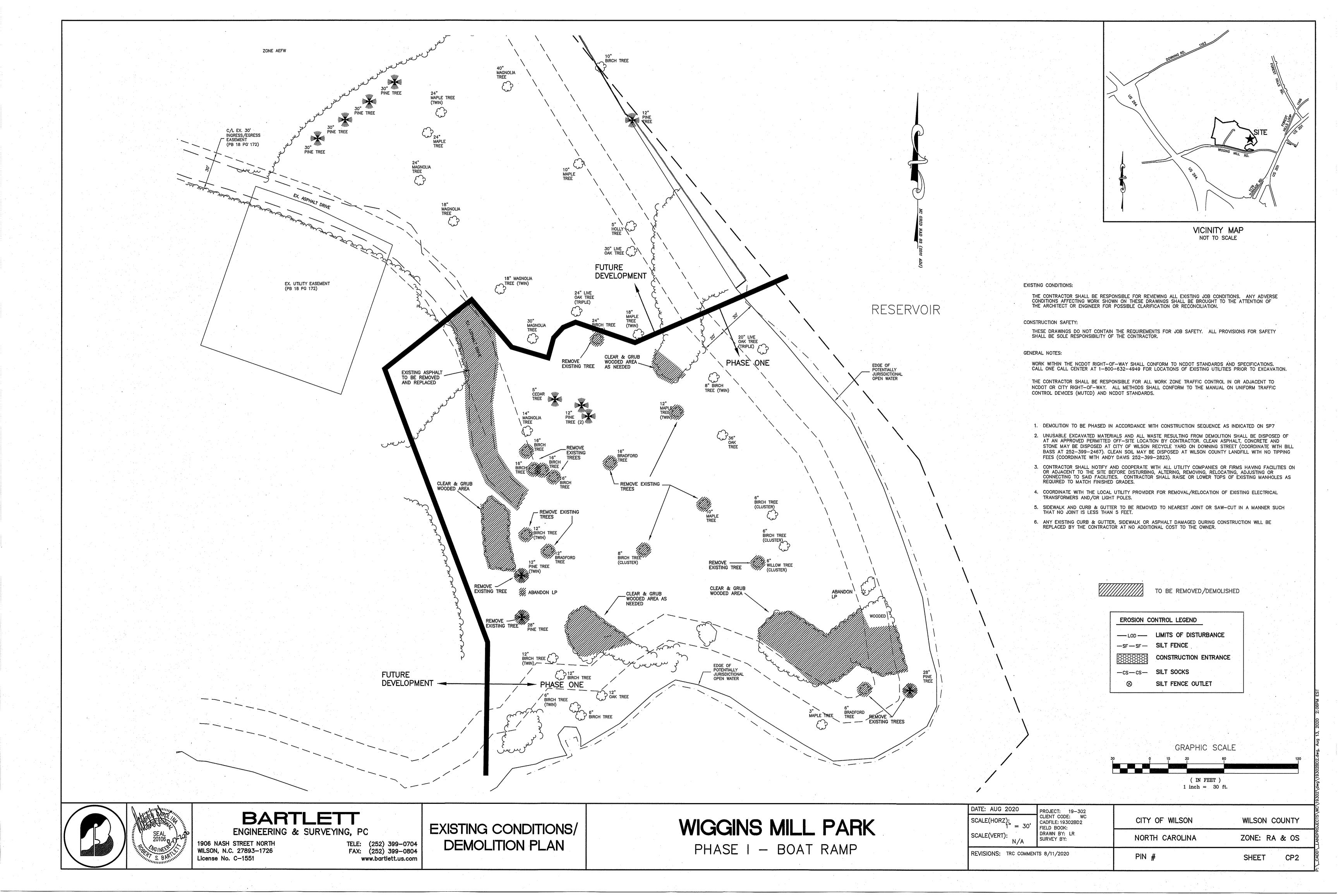
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CLIENT CODE: WC
PROJECT: 19-302
CADFILE: 19302SP1
SCALE: NTS

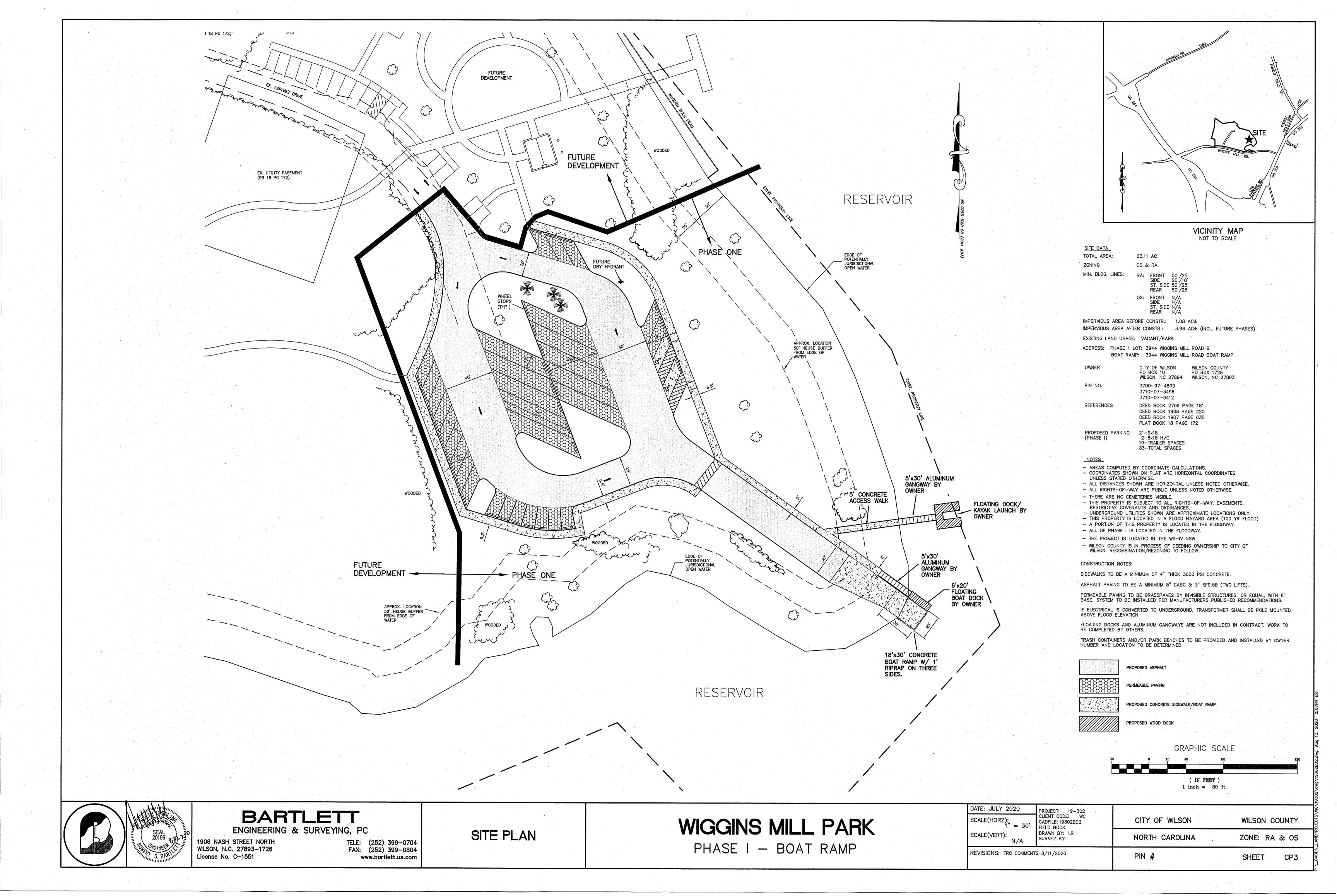
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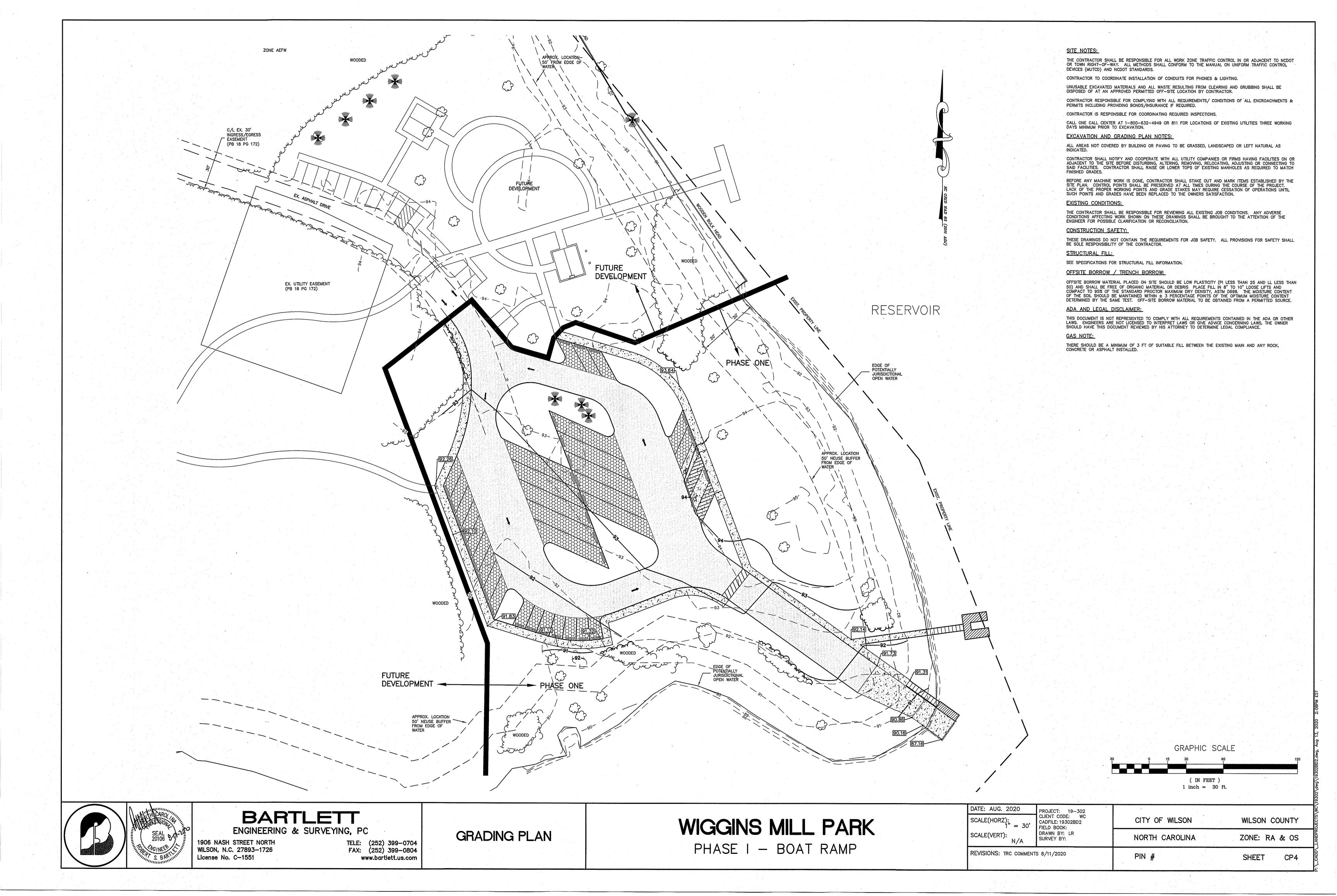
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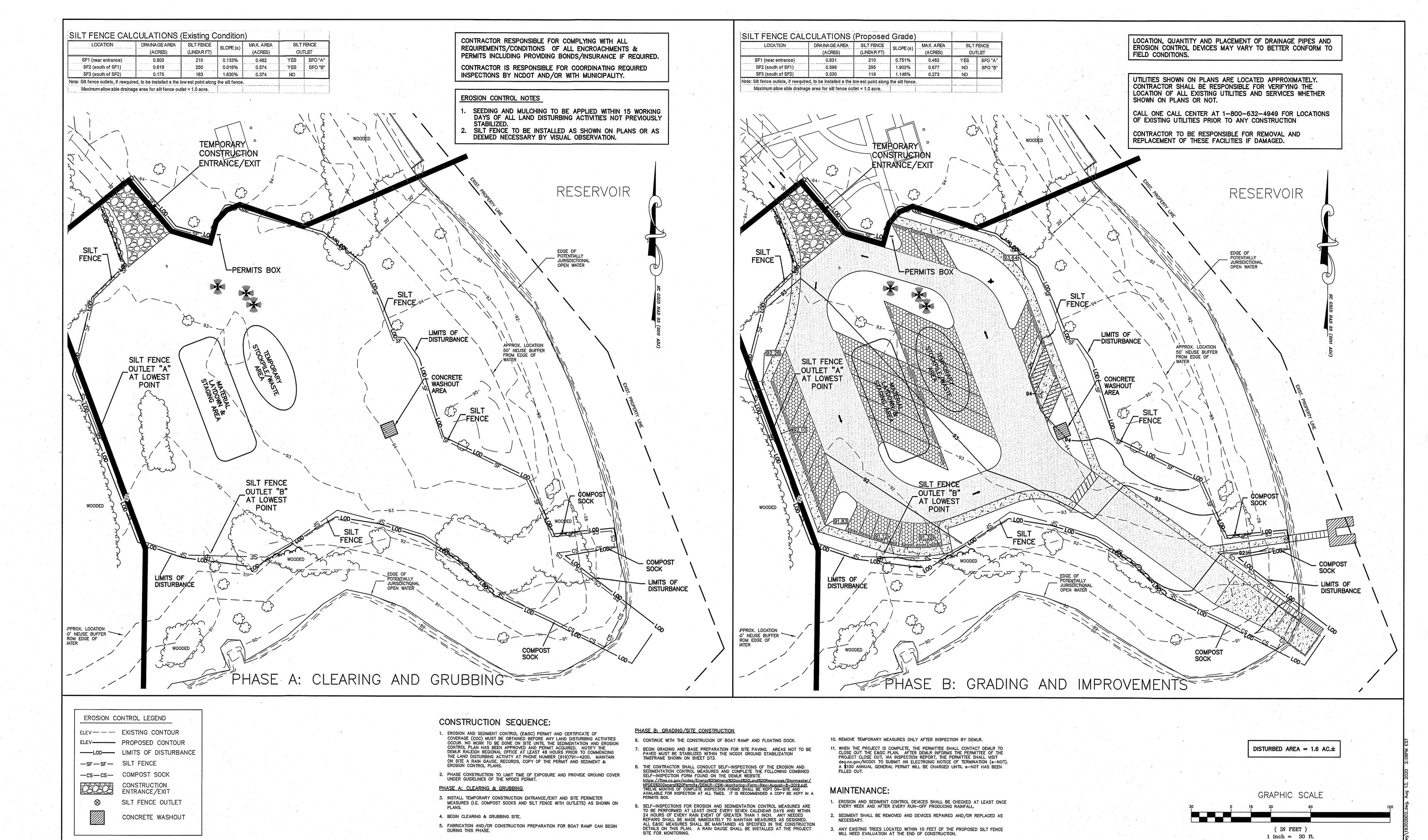
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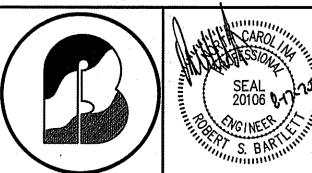












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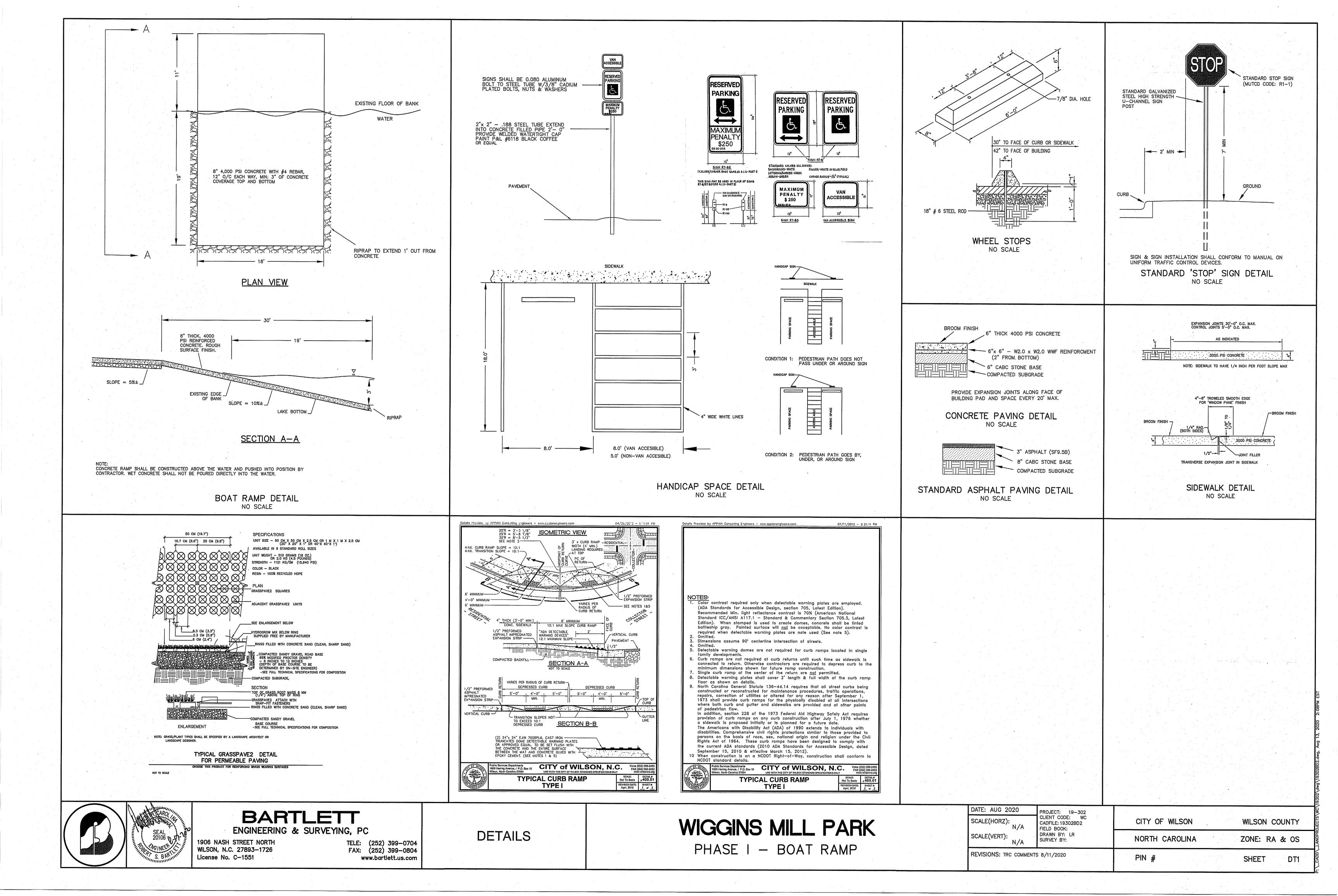
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**SEDIMENTATION** & EROSION **CONTROL PLAN** 

## WIGGINS MILL PARK

PHASE I - BOAT RAMP

DATE: AUG 2020	PROJECT: 19-302		
SCALE(HORZ): 1" = 30'	CLIENT CODE: WC CADFILE: 19302BD2 FIELD BOOK:	CITY OF WILSON	WILSON COUNTY
SCALE(VERT): N/A	DRAWN BY: RF SURVEY BY:	NORTH CAROLINA	ZONE: RA & OS
REVISIONS: TRC COMMENTS	S 8/11/2020	PIN #	SHEET CP5



#### **MAINTENANCE:**

EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CHECKED AT LEAST ONCE EVERY WEEK AND AFTER EVERY RUN-OFF PRODUCING RAINFALL. 2. SEDIMENT SHALL BE REMOVED AND DEVICES REPAIRED AND/OR REPLACED AS NECESSARY.

#### SEEDBED PREPARATION:

CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3" DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE. RIP ENTIRE AREA 6" DEEP.

REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND

APPLY AGRICULTURAL LIME AND FERTILIZER UNIFORMLY AND MIX WITH SOIL. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, REASONABLY UNIFORM SEEDBED IS PREPARED 4" TO 6"

SPREAD SEED ON FRESHLY PREPARED SEEDBED AND COVER LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACKER AFTER SEEDING.

MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.

SURFACE ROUGHENING IS PARTICULARLY IMPORTANT WHEN HYDROSEEDING, AS A ROUGHENED SLOPE WILL PROVIDE SOME NATURAL COVERAGE FOR LIME, FERTILIZER, AND SEED. THE SURFACE SHOULD NOT BE COMPACTED OR SMOOTH. FINE SEEDBED PREPARATION IS NOT NECESSARY FOR HYDROSEEDING OPERATIONS: LARGE CLODS, STONES, AND IRREGULARITIES PROVIDE CAVITIES IN WHICH SEEDS CAN LODGE. RATE OF WOOD FIBER (CELLULOSE) APPLICATION SHOULD BE AT LEAST 4,000 LB/ACRE. APPLY LEGUME INOCULANTS AT FOUR TIMES THE RECOMMENDED RATE WHEN ADDING INOCULANT TO A

IF A MACHINERY BREAKDOWN OF ½ TO 2 HOURS OCCURS, ADD 50% MORE SEED TO THE TASK, BASED ON THE PROPORTION OF THE SLURRY REMAINING. THIS SHOULD COMPENSATE FOR DAMAGE TO SEED. BEYOND 2 HOURS, FULL RATE OF NEW SEED MAY BE NECESSARY. LIME IS NOT NORMALLY APPLIED WITH A HYDRAULIC SEEDER BECAUSE IT IS ABRASIVE. IT CAN BE BLOWN ONTO STEEP SLOPES IN DRY FORM.

#### CRIMPING STRAW MULCH

CRIMPING CAN BE APPLIED TO AREAS ADJACENT TO ANY SECTION OF THE ROADWAY WHERE TRAFFIC IS TO BE MAINTAINED OR ALLOWED DURING CONSTRUCTION. IN AREAS WITHIN SIX FEET OF THE EDGE OF PAVEMENT, % of THE STRAW MULCH IS TO BE APPLIED AND THEN CRIMPED. AFTER THE CRIMPING OPERATION IS COMPLETE, THE OTHER HALF OF STRAW MULCH SHALL BE APPLIED AND IMMEDIATELY TACKED WITH A SUFFICIENT AMOUNT OF UNDILUTED EMULSIFIED ASPHALT.

STRAW MULCH SHALL BE OF SUFFICIENT LENGTH AND QUALITY TO WITHSTAND THE CRIMPING OPERATION. CRIMPING EQUIPMENT INCLUDING POWER SOURCE SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER PROVIDING THAT MAXIMUM SPACING OF CRIMPER BLADES SHALL NOT EXCEED 8".

#### SEEDING SCHEDULE:

#### TEMPORARY SEEDING

1				
	SEEDING MIXTURE <u>SPECIES</u> GERMAN MILLET	WINTER/EARLY SPRING RATE(LB/ACRE)	SUMMER RATE(LB/ACRE) 40	FALL RATE(LB/ACRE)
	RYE (GRAIN) PARTRIDGE PEA	120 60	***	120 60
	SEEDING DATES	12/1-4/15	4/15-8/15	8/15-12/30
	SOIL AMENDMENTS LIMESTONE FERTILIZER(10-10-10) STRAW MULCH EMULSIFIED ASPHALT TACK	2000 LB/ACRE 750 LB/ACRE 4000 LB/ACRE 435 GALLON/ACRE	2000 LB/ACRE 750 LB/ACRE 4000 LB/ACRE 435 GALLON/ACRE	2000 LB/ACRE 1000 LB/ACRE 4000 LB/ACRE 435 GALLON/ACRE

EMULSIFIED ASPHALT TACK	435 GALLON/ACRE	435 GALLON/ACRE	435 GALLON/ACRE
PERMANENT SEEDING			•
SEEDING MIXTURE SPECIES PARTRIDGE PEA INDIAN GRASS GERMAN MILLET	WINTER/EARLY SPRING RATE(LB/ACRE) 200 10	SUMMER RATE(LB/ACRE) 200 10 15	FALL RATE(LB/ACRE) 200 10
SEEDING DATES	2/1-4/15	5/1-8/15	8/25-10/1
SOIL AMENDMENTS LIMESTONE	3000-5000 LBS/ACRE	3000-5000 LBS/ACRE	3000-5000 LBS/ACRE
FERTILIZER(10-10-10)	1000 LB /ACRE	1000 LB/ACRE	1000 LB /ACRE

4000 LB/ACRE

200 LB/ACRE

2000 LB/ACRE

435 GALLON/ACRE

STRAW MULCH

FERTILIZER STRAW MULCH

#### **MAINTENANCE:**

EMULSIFIED ASPHALT TACK

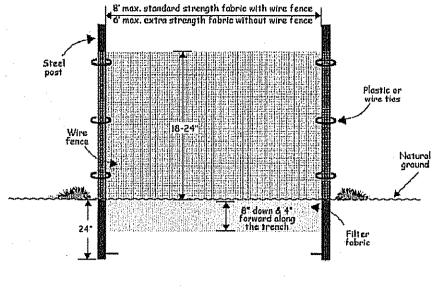
SOME RECOMMENDED GRASS SPECIES MAY REQUIRE TWO YEARS FOR ESTABLISHMENT, DEPENDING ON SITE CONDITIONS. INSPECT SEEDED AREA FOR FAILURE AND MAKE NECESSARY REPAIRS, SOIL AMENDMENTS, AND RESEEDINGS. IF WEEDY EXOTIC SPECIES HAVE OVERTAKEN THE AREA AFTER THE FIRST GROWING SEASON, THE INVADING SPECIES MUST BE ERADICATED TO ALLOW NATIVE SPECIES TO GROW. NATIVE VEGETATIONS ARE DIFFICULT TO MANAGE AND TAKE LONGER TO ESTABLISH. MONITOR THE SITE UNTIL LONG TERM STABILISHED. STABILITY HAS BEEN ESTABLISHED.

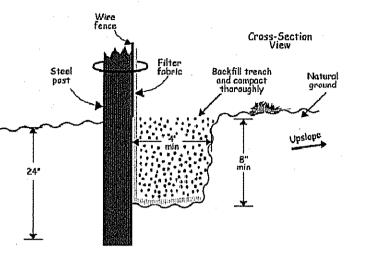
4000 LB/ACRE

435 GALLON/ACRE

4000 LB/ACRE

435 GALLON /ACRE





SILT FENCE DETAIL NO SCALE

#### INSTALLATION SPECIFICATIONS

- THE BASE OF BOTH END POSTS SHOULD BE AT LEAST ONE FOOT HIGHER THAN THE MIDDLE OF THE FENCE. CHECK WITH A LEVEL IF NECESSARY.
   INSTALL POSTS 4 FEET APART IN CRITICAL AREAS AND 6 FEET APART ON STANDARD
- 3. INSTALL POSTS 2 FEET DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE
- AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT THE FABRIC FROM UPSTREAM WATER PRESSURE.
- INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC. INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC.
   ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8 INCHES OF THE FABRIC. ATTACH EACH TIE DIAGONALLY45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1 INCH VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
   WRAP APPROXIMATELY 6 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3
- 7. NO MORE THAN 24 INCHES OF A 36 INCH FABRIC IS ALLOWED ABOVE THE GROUND LEVEL. 8. THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE
- 9. COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQUARE INCH. COMPACT THE

UPSTREAM SIDE FIRST, AND THEN EACH SIDE TWICE FOR A TOTAL OF 4 TRIPS.

#### MAINTENANCE

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DEOMPOSE OR BECOME INEFFECTIVE, REPLACE PROMPTLY.

REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY

#### CONSTRUCTION SPECIFICATIONS

- 1. USE A SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461, WHICH IS SHOWN IN PART IN TABLE 6.62B. SYNTHETIC FILTER FABRIC SHOULD CONTAIN UNLTRA VIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE
- 2. ENSURE THAT POSTS FOR SEDIMENT FENCES ARE 1.25 LB/LINEAR FT MINIMUM STEEL WITH A MINIMUM LENGTH OF 5 FEET. MAKE SURE THAT STEEL POSTS HAVE PROJECTIONS TO FACILITATE FASTENING THE FABRIC.

#### Table 6 62h Specifications For Sediment Fence Fabric

	Temporary Silt Fe	ence Material	Property Require	ments	
	Test Material	Units	Supported <sup>1</sup> Sill Fence	Un-Supported¹ Silt Fence	Type of Value
Grab Strength	ASTM D 4632	N (lbs)			
Machine Direction			400	550	MARV
			(90)	(90)	
X-Machine Direction			400	450	MARV
			(90)	(90)	
Permittivity <sup>2</sup>	ASTM D 4491	sec-1	0.05	0.05	MARV
Apparent Opening Size <sup>2</sup>	ASTM D 4751	mm	0.60	0.60	Max. ARV
		(US Sleve #)	(30)	(30)	
Ultraviolet Stabliky	ASTM D 4355	% Retained Strength	70% after 500h of exposure	70% efter 500h of exposure	Typical
¹ Slit Fence support shalf consequivalent strength. ² These default values are bas previous experience and/or sit by the agency to confirm suital ³ As measured in accordance	ed on empirical evidence or regionally specific billy of these requirement	ce with a variety o geotextile tests in ents.	sediment. For enviror	nnentally sensitive area	15, a review c

#### CONSTRUCTION

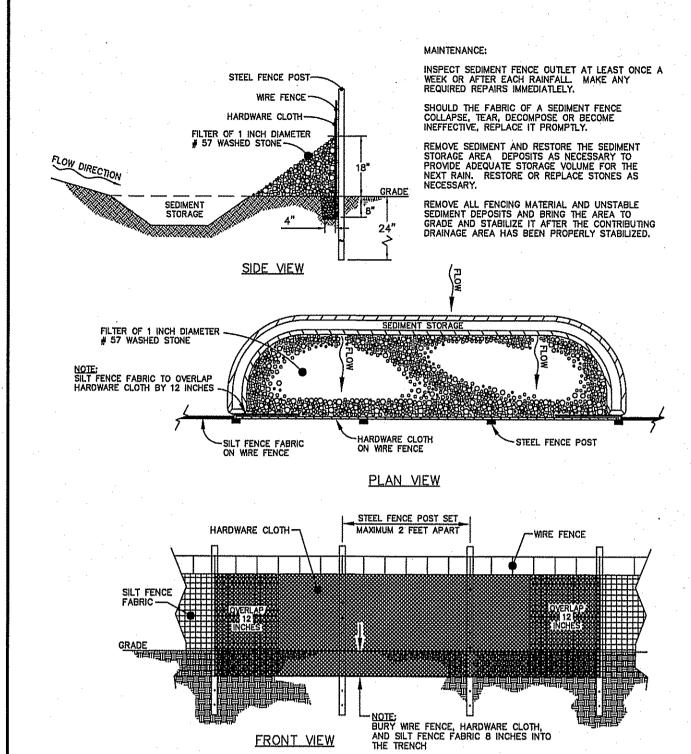
- 1. CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS 2. ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED 24 INCHES ABOVE THE GROUND SURFACE. (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.
- 3. CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL CUT TO THE LENGTH OF THE
- BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER CLOTH ONLY AT A SUPPORT POST WITH 4 FEET MINIMUM OVERLAP TO THE NEXT POST.

  SUPPORT STANDARD LENGTH FILTER FABRIC BY WIRE MESH FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS. EXTEND THE WIRE MESH SUPPORT TO THE BOTTOM OF THE TRENCH. FASTEN THE WIRE REINFORCEMENT, THEN FABRIC ON THE UPSLOPE SIDE OF THE FENCE POST. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM 50 POUND TENSILE STRENGTH. 5. WHEN THE WIRE MESH SUPPORT FENCE IS USED, SPACE POST A MAXIMUM OF 8 FEET APART.
- SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24 INCHES. 6. EXTRA STRENGTH FILTER FABRIC WITH 6 FEET POST SPACING DOES NOT REQUIRE WIRE MESH SUPPORT FENCE. SECURELY FASTEN THE FILTER FABRIC DIRECTLY TO POSTS. WIRE OR PLASTIC ZIP TIES SHOULD HAVE A MINIMUM 50 POUND TENSILE STRENGTH.
- 7. EXCAVATE A TRENCH APPROXIMATELY 4 INCHES WIDE AND 8 INCHES DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER.

  8. PLACE 12 INCHES OF THE FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.

  9. BACKFILL THE TRENCH WITH SOIL PLACED OVER THE FILTER FABRIC AND COMPACT. THOROUGH COMPACTION OF THE BACKFILL IS CRITICAL TO SILT FENCE PERFORMANCE.

  10. DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.



STANDARD SILT FENCE OUTLET

2-3" COARSE AGGREGATE -

CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
 PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.
 PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
 USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE

MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-3 INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY.

FOR CROSSINGS OVER CHANNELS/DITCH, INSPECT BLOCKAGE, EROSION OF ABUTMENTS, CHANNEL SCOUR, RIPRAP DISPLACEMENT, OR PIPING. MAKE ALL REPAIRS IMMEDIATELY TO PREVENT FURTHER DAMAGE TO

CONSTRUCTION ENTRANCE

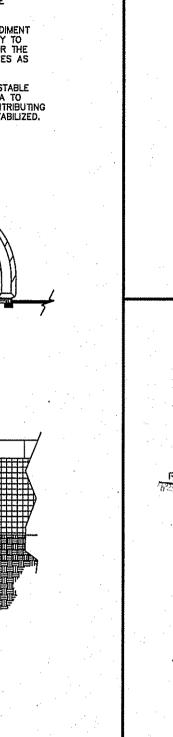
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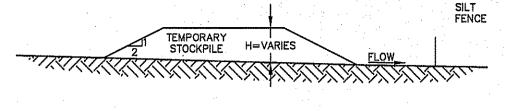
IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC

CONSTRUCTION SPECIFICATION:

MAINTENANCE:

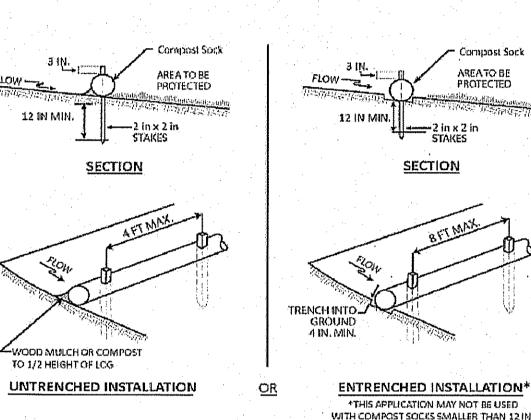
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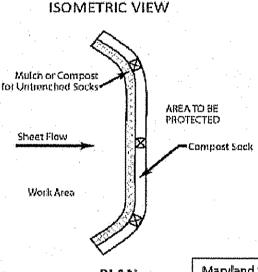




TEMPORARY STOCKPILE WITH SILT FENCE NO SCALE

STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN THREE (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCKPILES TO REMAIN IN PLACE FOR 30 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.





Maryland Standards and Specifications for Soil Erosion and Sediment Control, 2011, Maryland Department of Environment, Water Management Administration

#### CONSTRUCTION SPECIFICATION:

Figure 6.66b Compost Sock Installation

MATERIALS USED IN THE COMPOST SOCK MUST MEET THE SPECIFICATIONS OUTLINED IN THE NC EROSION CONTROL AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL FOR COMPOST SOCKS AND COMPOST BLANKETS.
COMPOST SOCKS SHOULD BE LOCATED AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.
PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND OTHER DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF THE COMPOST SOCK. COMPOST SOCKS SHOULD BE INSTALLED PARALLEL TO THE TOE OF A GRADED SLOPE, A MINIMUM OF 10 FEET BEYOND THE TOE OF THE SLOPE. SOCKS LOCATED BELOW FLAT AREAS SHOULD BE LOCATED AT THE EDGE OF THE LAND—DISTURBANCE. THE ENDS OF THE SOCKS SHOULD BE TURNED SLIGHTLY UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE END OF THE SOCKS. 5. FILL SOCK NETTING UNIFORMLY WITH COMPOST TO THE DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
6. OAK OR OTHER DURABLE HARDWOOD STAKES 2" X 2" IN CROSS SECTION SHOULD BE DRIVEN VERTICALLY PLUMB. THROUGH THE CENTER OF THE COMPOST SOCK. STAKES SECTION SHOULD BE DRIVEN VERTICALLY PLUMB, THROUGH THE CENTER OF THE COMPOST SOCK. STAKES SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 4 FEET, OR A MAXIMUM INTERVAL OF 8 FEET IF THE SOCK IS PLACED IN A 4 INCH TRENCH. THE STAKES SHOULD BE DRIVEN TO A MINIMUM DEPTH OF 12 INCHES, WITH A MINIMUM OF 3 INCHES PROTRUDING ABOVE THE COMPOST SOCK.

7. IN THE EVENT STAKING IS NOT POSSIBLE (i.e. WHEN SOCKS ARE USED ON PAVEMENT) HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SOCK TO HOLD IT IN PLACE DURING RUNOFF EVENTS.

8. IF THE COMPOST SOCK IS TO BE LEFT AS PART OF THE NATURAL LANDSCAPE, IT MAY BE SEEDED AT THE TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION USING THE SEEDING SPECIFICATION IN THE EROSION AND SEDIMENTATION CONTROL PLAN.

9. COMPOST SOCKS ARE NOT BE BE USED IN PERFONIAL OR INTERMITTENT STREAMS

INSPECT COMPOST SOCKS WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1/2 INCH OR GREATER). REMOVE ACCUMULATED SEDIMENT AND ANY DEBRIS. THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN. IF PONDING BECOMES EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OF A DIFFERENT MEASURE. THE SOCK NEEDS TO BE REINSTALLED IF UNDERMINED OR DISLODGED. THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY ESTABLISHED.

#### DISPOSAL/RECYCLING:

COMPOST MEDIA IS A COMPOSTED ORGANIC PRODUCT RECYCLED AND MANUFACTURED FROM LOCALLY GENERATED ORGANIC, NATURAL, AND BIOLOGICALLY BASED MATERIALS. ONCE ALL SOIL HAS BEEN STABILIZED AND CONSTRUCTION ORGANIC, NATURAL, AND BIOLOGICALLY BASED MATERIALS. ONCE ALL SOIL HAS BEEN STABILIZED AND CONSTRUCTION ACTIVITY HAS BEEN COMPLETED, THE COMPOST MEDIA MAY BE DISPERSED WITH A LOADER, RAKE, BULLDOZER OR SIMILAR DEVICE AND MAY BE INCORPORATED INTO THE SOIL AS AN AMENDMENT OR LEFT ON THE SOIL SURFACE TO AID IN PERMANENT SEEDING OR LANDSCAPING. LEAVING THE COMPOST MEDIA ON SITE REDUCES REMOVAL AND DISPOSAL COSTS COMPARED TO OTHER SEDIMENT CONTROL DEVICES. THE MESH NETTING MATERIAL WILL BE EXTRACTED FROM THE MEDIA AND DISPOSED OF PROPERLY. THE PHOTODEGRADABLE MESH NETTING MATERIAL WILL DEGRADE IN 2 TO 5 YEARS IF LEFT ON SITE. BIODEGRADABLE MESH NETTING MATERIAL IS AVAILABLE AND DOES NOT NEED TO BE EXTRACTED AND DISPOSED OF, AS IT WILL COMPLETELY DECOMPOSE IN APPROXIMATELY 6 TO 12 MONTHS. USING BIODEGRADABLE COMPOST SOCKS COMPLETELY ELIMINATES THE NEED AND COST OF REMOVAL AND DISPOSAL.

> COMPOST SOCK NO SCALE



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## WIGGINS MILL PARK

PHASE I - BOAT RAMP

		110 SOALL	
DATE: AUG 2020	PROJECT: 19-302		
SCALE(HORZ): N/A	CLIENT CODE: WC CADFILE: 19302BD2 FIELD BOOK:	CITY OF WILSON	WILSON COUNTY
SCALE(VERT): N/A	DRAWN BY: RF SURVEY BY:	NORTH CAROLINA	ZONE: RA & OS
REVISIONS: TRC COMME	NTS 8/11/2020	PIN #	SHEET DT2

9. COMPOST SOCKS ARE NOT BE BE USED IN PERENNIAL OR INTERMITTENT STREAMS.

#### GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

#### **SECTION E: GROUND STABILIZATION**

	Re	equired Ground Stabi	ization Timeframes
Site Area Description		Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a)	Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b)	High Quality Water (HQW) Zones	7	None
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e)	Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

**Note:** After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

#### **GROUND STABILIZATION SPECIFICATION**

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the

echniques in the table below:  Temporary Stabilization	Permanent Stabilization
<ul> <li>Temporary grass seed covered with straw or other mulches and tackifiers</li> </ul>	Permanent grass seed covered with straw or other mulches and tackifiers
<ul> <li>Hydroseeding</li> <li>Rolled erosion control products with or without temporary grass seed</li> </ul>	<ul> <li>Geotextile fabrics such as permanent soil reinforcement matting</li> <li>Hydroseeding</li> </ul>
<ul> <li>Appropriately applied straw or other mulch</li> <li>Plastic sheeting</li> </ul>	<ul> <li>Shrubs or other permanent plantings covered with mulch</li> </ul>
	Uniform and evenly distributed ground cover sufficient to restrain erosion
	Structural methods such as concrete, asphalt or retaining walls
	Rolled erosion control products with grass seed

#### POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- 1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

#### **EQUIPMENT AND VEHICLE MAINTENANCE**

- 1. Maintain vehicles and equipment to prevent discharge of fluids.
- 2. Provide drip pans under any stored equipment.
- 3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- 4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- 5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- 6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

#### LITTER. BUILDING MATERIAL AND LAND CLEARING WASTE

- 1. Never bury or burn waste. Place litter and debris in approved waste containers.
- 2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
- 3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- 5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- 6. Anchor all lightweight items in waste containers during times of high winds.
- 7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

#### **PAINT AND OTHER LIQUID WASTE**

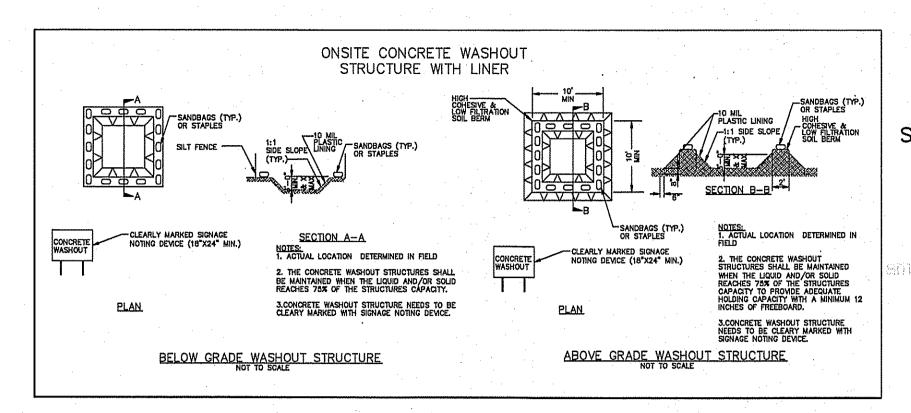
- 1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- 2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- 4. Containment must be labeled, sized and placed appropriately for the needs of site.
- 5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

#### **PORTABLE TOILETS**

- 1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- 2. Provide staking or anchoring of portable toilets during periods of high winds or in high
- 3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

#### **EARTHEN STOCKPILE MANAGEMENT**

- 1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- 3. Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



#### **CONCRETE WASHOUTS**

- 1. Do not discharge concrete or cement slurry from the site.
- 2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- 3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- 4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- 5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- 6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- 7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- 8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- 9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- 10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

#### HERBICIDES, PESTICIDES AND RODENTICIDES

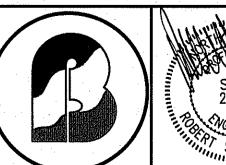
- 1. Store and apply herbicides, pesticides and rodenticides in accordance with label
- 2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- 3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- 4. Do not stockpile these materials onsite.

#### **HAZARDOUS AND TOXIC WASTE**

- 1. Create designated hazardous waste collection areas on-site.
- 2. Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19





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S & E NCG01 **DETAILS** (1 OF 2)

WIGGINS MILL PARK

PHASE I - BOAT RAMP

DATE: AUG 2020	PROJECT: 19-302
SCALE(HORZ): N/A SCALE(VERT): N/A	CLIENT CODE: WC CADFILE: 19302BD2 FIELD BOOK: DRAWN BY: LR SURVEY BY:

REVISIONS: TRC COMMENTS 8/11/2020

CITY OF WILSON WILSON COUNTY NORTH CAROLINA ZONE: RA & OS

PIN #

DT3

SHEET

## PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

#### **SECTION A: SELF-INSPECTION**

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge	Daily	Daily rainfall amounts.
maintained in		If no daily rain gauge observations are made during weekend of
good working		holiday periods, and no individual-day rainfall information is
order		available, record the cumulative rain measurement for those un
		attended days (and this will determine if a site inspection is
	,	needed). Days on which no rainfall occurred shall be recorded a
		"zero." The permittee may use another rain-monitoring device
		approved by the Division.
(2) E&SC	At least once per	1. Identification of the measures inspected,
Measures	7 calendar days	2. Date and time of the inspection,
	and within 24	3. Name of the person performing the inspection,
	hours of a rain	4. Indication of whether the measures were operating
	event ≥ 1.0 inch in	properly,
	24 hours	5. Description of maintenance needs for the measure,
		6. Description, evidence, and date of corrective actions taken.
(3) Stormwater	At least once per	Identification of the discharge outfalls inspected,
discharge	7 calendar days	2. Date and time of the inspection,
outfalls (SDOs)	and within 24	3. Name of the person performing the inspection,
	hours of a rain	4. Evidence of indicators of stormwater pollution such as oil
	event ≥ 1.0 inch in	sheen, floating or suspended solids or discoloration,
	24 hours	5. Indication of visible sediment leaving the site,
		6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of	At least once per	If visible sedimentation is found outside site limits, then a record
site	7 calendar days	of the following shall be made:
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	and within 24	1. Actions taken to clean up or stabilize the sediment that has left
	hours of a rain	the site limits,
	event ≥ 1.0 inch in	2. Description, evidence, and date of corrective actions taken, and
	24 hours	3. An explanation as to the actions taken to control future
		releases.
(5) Streams or	At least once per	If the stream or wetland has increased visible sedimentation or a
wetlands onsite	7 calendar days	stream has visible increased turbidity from the construction
or offsite	and within 24	activity, then a record of the following shall be made:
(where	hours of a rain	1. Description, evidence and date of corrective actions taken, and
accessible)	event ≥ 1.0 inch in	2. Records of the required reports to the appropriate Division
	24 hours	Regional Office per Part III, Section C, Item (2)(a) of this permit of this permit.
(6) Ground	After each phase	The phase of grading (installation of perimeter E&SC
stabilization	of grading	measures, clearing and grubbing, installation of storm
measures		drainage facilities, completion of all land-disturbing
		activity, construction or redevelopment, permanent
		ground cover).
		2. Documentation that the required ground stabilization
	•	measures have been provided within the required
		timeframe or an assurance that they will be provided as
	1	A second

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

## PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

#### SECTION B: RECORDKEEPING

#### 1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan.	Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC Plan.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC Measures.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

#### 2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the site

and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- (a) This general permit as well as the certificate of coverage, after it is received.
- (b) Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- (c) All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

#### PART III

#### SELF-INSPECTION, RECORDKEEPING AND REPORTING

#### SECTION C: REPORTING

#### 1. Occurrences that must be reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

#### (b) Oil spills if:

- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).
- (a) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (b) Anticipated bypasses and unanticipated bypasses.
- (c) Noncompliance with the conditions of this permit that may endanger health or the environment.

#### 2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.</li> <li>If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional</li> </ul>
•	monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure complian with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	<ul> <li>A report at least ten days before the date of the bypass, if possible.</li> <li>The report shall include an evaluation of the anticipated quality and effect of the bypass.</li> </ul>
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.</li> </ul>
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(I)(7)]	<ul> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6).</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>

## NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



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## WIGGINS MILL PARK

PHASE I - BOAT RAMP

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DATE: AUG 2020	PROJECT: 19-302 CLIENT CODE: WC CADFILE: 19302BD2 FIELD BOOK: DRAWN BY: RF SURVEY BY:		
SCALE(HORZ): N/A		CITY OF WILSON	WILSON COUNTY
SCALE(VERT): N/A		NORTH CAROLINA	ZONE: RA & OS
REVISIONS: TRC COMMENT	S 8/11/2020	PIN #	SHEET DT4