



US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: September 27, 2013
Comment Deadline: October 27, 2013
Corps Action ID Number: SAW- 2011-00622

The Wilmington District, Corps of Engineers (Corps) received an application from Mallard Creek Development, Inc. seeking Department of the Army authorization to discharge dredged and/or fill material into waters of the United States, associated with constructing access and infrastructure for section VIII of the Mallard Creek residential subdivision located west of US Highway 17, at its intersection with Mallard Drive in Jacksonville, Onslow County, North Carolina.

Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at

<http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram.aspx>

Applicant: Mallard Creek Development, Inc.
Attn: Mr. John Pierce
Post Office Box 1685
Jacksonville, North Carolina 28541

Agent: Pittman Soil Consulting
Attn: Mr. Haywood Pittman
1003 Gregory Fork Road
Richlands, North Carolina 28574

Authority

The Corps evaluates this application and decides whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of the following Statutory Authorities:

- Section 404 of the Clean Water Act (33 U.S.C. 1344)
- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)
- Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)

Location

Directions to Site: The proposed project area is an undeveloped tract west of the existing sections of the Mallard Creek residential subdivision, located west of US Highway 17, at its intersection with Mallard Drive, in Jacksonville, Onslow County, North Carolina

Project Area (acres): 49.33 Nearest Town: Jacksonville
Nearest Waterway: UT to Hicks Run River Basin: White Oak; HUC 03030001
Latitude and Longitude: 34.681543° N, -77.480921° W

Existing Site Conditions

The proposed project area is located within the Coastal Plain Ecoregion. The site has been historically utilized for timber and agriculture production and currently contains stands of loblolly pine and mixed deciduous forest of varying maturity. A Progress Energy transmission line easement, approximately 100-foot wide, runs through the northeastern corner of the property. Based on the North Carolina Wetland Assessment Methodology (NCWAM), wetlands on the Williamsburg Plantation property include a mosaic of Riverine Swamp Forest and Bottomland Hardwood Forest in floodplain areas of Hicks Run, and Headwater Forest wetlands in smaller stream valleys and topographic drainages higher in the landscape. Jurisdictional streams on the property include Hicks Run and two unnamed tributaries (UTs), all Relatively Permanent Waters (RPWs), which flow to Southwest Creek, a Traditionally Navigable Water.

Hicks Run and of its UTs carry the NC Division of Water Resources (NCDWR) best usage classification of “C NSW”; “C” refers to those waters protected for secondary recreation, fishing, wildlife, fish consumption, aquatic life including propagation, survival, and maintenance of biological integrity, agriculture and other uses, whereas “NSW” is a supplemental classification intended for waters needing additional nutrient management due to being subject to excessive growth of microscopic or macroscopic vegetation. There are no designated Outstanding Resource Waters (ORW), High Quality Waters (HQW), Water Supply I (WS-I), or Water Supply (WS-II) waters within 1.0 mile of the project area.

The property is bordered to the east by a UT to Hicks Run and the existing sections of Mallard Creek and South Creek residential subdivisions, to the south by undeveloped land including forest and farm fields, to the west by a UT to Hicks Run and Gamelands managed by the State of North Carolina, and to the north by Hicks Run and undeveloped forest land. The majority of the surrounding site area is a mixture of land use including residential, agricultural, managed forest, and Camp Lejeune military base on the east side of US Highway 17.

Elevation in the immediate vicinity of the site ranges from approximately 35 feet above mean sea level (MSL) in the southernmost extent of the property to 8 feet MSL along Hicks Run.

Pittman Soil Consulting, consultant for Mallard Creek Development, Inc., conducted a jurisdictional delineation for the proposed site in 2010. The jurisdictional boundaries were verified by the Corps and surveyed and mapped by a registered land surveyor; a Jurisdictional Determination (JD) was approved on July 8, 2011 (USACE ID No. SAW-2011-00622).

Background

Four previous crossings were constructed for the Mallard Creek subdivision single and complete project. Crossing 1 was constructed in 1994 as an extension of Mandarin Trail and access to Mallard Creek section IV, and involved impacts to 0.018 acre of wetlands. Crossing 2, involving impacts to 0.2 acre of wetlands and 80 linear feet of stream, was constructed in 1998 for the Pekin Street crossing and further access to Mallard Creek section IV. Crossing 3 was constructed in 1999, and involved impacts to 0.05 acre of wetlands and for an extension of Pekin Street into Mallard Creek section VII. Crossing 4 was constructed in 2001 and involved impacts to 0.43 acre of wetlands and 80 linear feet of stream to provide emergency vehicle access to Mallard Creek section VII.

Crossings 1-3 were authorized under Nationwide Permit (NWP) number 26, and at the time were below the impact acreage threshold requiring notification; as such written verification of Corps authorization was not required. NWP 26 expired on January 5, 2000. Crossing 4 was constructed without authorization; however, this crossing was allowed to remain in place following enforcement action from this office under Corps Action ID SAW-2001-01113. Although the roadway fill and culvert for Crossing 4 has been in place since 2001, this crossing has not been paved to this date. According to the applicant, upon completion of Section VIII the crossing will be required to be paved by Onslow County. Given mitigation guidelines during the time these crossings were installed, no compensatory mitigation was required for any of these activities.

Cumulative impacts to Waters of the U.S. for the Mallard Creek subdivision single and complete project following all actions described above total 0.698 acre of wetlands and 160 linear feet of stream. Given that the current proposed impacts to Waters of the U.S., in combination with impacts from earlier phases, exceed the Nationwide Permit threshold, the current proposal to further expand Mallard Creek subdivision is subject to Individual Permit review.

Applicant's Stated Purpose

The purpose of this project is to construct a residential subdivision.

Project Description

The applicant has proposed to discharge fill material into an additional 0.048 acre of riparian, non-riverine wetlands and 80 linear feet of streams to complete section VIII of Mallard Creek

residential subdivision. No temporary impacts are proposed. The proposed impacts to Waters of the U.S. are the result of one road crossing, intended to provide access to proposed upland facilities including single family homes and associated infrastructure such as utilities and amenities.

Table 1. Existing and Proposed Permanent Waters of the U.S. Impacts Table

Impact	Wetland Impacts (acre)	Stream Impacts (linear feet)
Crossing 1: NWP 26, no notification required, 1994	0.018	-
Crossing 2: NWP 26, no notification required, 1998	0.20	80
Crossing 3: NWP 39, no notification required, 1999	0.05	-
Crossing 4: Installed as an unauthorized activity in 2001, resolved via enforcement action in October 2001 under SAW-2001-01113	0.43	80
Previously Constructed Total:	0.698	160
Crossing 5 Currently Proposed:	0.048	80
Subdivision Total	0.746	240

The applicant submitted an Alternatives Analysis that includes No Action, No Permit and Off-site Alternatives. This information has been included with this Public Notice as well. Supplemental documentation including project plans and a narrative can be found on the District Website at <http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram/PublicNotices.aspx>.

Avoidance and Minimization

Avoidance and minimization efforts for Crossing 4 were documented in Action ID: SAW-2001-01113. Crossings 1-3 were below the notification thresholds of NWP 26, and thus no avoidance and minimization information was received by the Corps.

The applicant provided the following information in support of efforts to avoid and/or minimize impacts to the aquatic environment for the current proposed impacts:

The proposed road crossing impacts to Waters of the U.S. would be minimized due incorporating headwalls into the design, and installing silt fencing around fill slopes and sediment traps in uplands during construction..

Compensatory Mitigation

The applicant offered the following compensatory mitigation plan to offset unavoidable functional loss to the aquatic environment:

Given the mitigation guidelines during the time Crossings 1-4 were installed, no compensatory mitigation was required for any of these activities.

The applicant proposes to mitigate for permanent wetland and stream losses through purchasing riparian, non-riverine wetland and stream credits at a 1:1 ratio from the Bachelors Delight Mitigation Bank, located approximately 11 miles north of the project area.

Essential Fish Habitat

Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, this Public Notice initiates the Essential Fish Habitat (EFH) consultation requirements. The Corps' initial determination is that the proposed project would not effect EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service.

Cultural Resources

The applicant stated that an archeological survey was conducted on the subject property and no occurrences were found. Further, the applicant stated that the State Historic Preservation Office (SHPO) was notified about the project on July 29, 2011; however, they did not provide correspondence indicating concurrence or otherwise.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, Appendix C of 33 CFR Part 325, and the 2005 Revised Interim Guidance for Implementing Appendix C, the District Engineer consulted district files and records and the latest published version of the National Register of Historic Places and initially determines that:

- Should historic properties, or properties eligible for inclusion in the National Register, be present within the Corps' permit area; the proposed activity requiring the DA permit (the undertaking) is a type of activity that will have no potential to cause an effect to an historic properties.
- No historic properties, nor properties eligible for inclusion in the National Register, are present within the Corps' permit area; therefore, there will be no historic properties affected. The Corps subsequently requests concurrence from the SHPO (or THPO).
- Properties ineligible for inclusion in the National Register are present within the Corps' permit area; there will be no historic properties affected by the proposed work. The Corps subsequently requests concurrence from the SHPO (or THPO).
- Historic properties, or properties eligible for inclusion in the National Register, are present within the Corps' permit area; however, the undertaking will have no

adverse effect on these historic properties. The Corps subsequently requests concurrence from the SHPO (or THPO).

- Historic properties, or properties eligible for inclusion in the National Register, are present within the Corps' permit area; moreover, the undertaking may have an adverse effect on these historic properties. The Corps subsequently initiates consultation with the SHPO (or THPO).
- The proposed work takes place in an area known to have the potential for the presence of prehistoric and historic cultural resources; however, the area has not been formally surveyed for the presence of cultural resources. No sites eligible for inclusion in the National Register of Historic Places are known to be present in the vicinity of the proposed work. Additional work may be necessary to identify and assess any historic or prehistoric resources that may be present.

The District Engineer's final eligibility and effect determination will be based upon coordination with the SHPO and/or THPO, as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-identified permit area.

Endangered Species

The U.S. Fish and Wildlife Service (USFWS) has identified the following threatened or endangered species within Onslow County: American alligator (*Alligator mississippiensis*), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), shortnose sturgeon (*Acipenser brevirostrum*), loggerhead sea turtle (*Caretta caretta*), green sea turtle (*Chelonia mydas*), leatherback sea turtle (*Dermochelys coriacea*), West Indian manatee (*Trichechus manatus*), piping plover (*Charadrius melodus*), red-cockaded woodpecker (*Picoides borealis*), seabeach amaranth (*Amaranthus pumilus*), golden sedge (*Carex lutea*), Hirst's panic grass (*Dichanthelium hirstii*), pondberry (*Lindera melissifolia*), rough-leaf loosestrife (*Lysimachia asperulaefolia*), and Cooley's meadowrue (*Thalictrum cooleyi*).

The applicant stated that they reviewed aerial photography, soil maps, and topographic maps, and conducted on-site surveys to evaluate the potential of the site to support federally listed threatened or endangered species or their habitat. Specifically, no suitable habitat was found for red-cockaded woodpecker, Atlantic sturgeon, shortnose sturgeon, loggerhead sea turtle, green sea turtle, leatherback sea turtle, West Indian manatee, golden sedge, rough-leaf loosestrife, Cooley's meadowrue, Hirst's panic grass, or pondberry on the site. The applicant stated that the U.S. Fish and Wildlife Service (USFWS) was notified about the project on September 9, 2013; however, they did not provide correspondence indicating concurrence or otherwise.

Pursuant to the Endangered Species Act of 1973, the Corps reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information:

- The Corps determines that the proposed project would not affect federally listed endangered or threatened species or their formally designated critical habitat.
- The Corps determines that the proposed project may affect federally listed endangered or threatened species or their formally designated critical habitat.
The Corps initiates consultation under Section 7 of the ESA and will not make a permit decision until the consultation process is complete.
- The Corps is not aware of the presence of species listed as threatened or endangered or their critical habitat formally designated pursuant to the Endangered Species Act of 1973 (ESA) within the project area. The Corps will make a final determination on the effects of the proposed project upon additional review of the project and completion of any necessary biological assessment and/or consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service.

Other Required Authorizations

The Corps forwards this notice and all applicable application materials to the appropriate State agencies for review.

North Carolina Division of Water Resources (NCDWR): The Corps will generally not make a final permit decision until the NCDWR issues, denies, or waives State Certification required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice combined with appropriate application fee at the NCDWR Central Office in Raleigh constitutes initial receipt of an application for a 401 Water Quality Certification. A waiver will be deemed to occur if the NCDWQ fails to act on this request for certification within sixty days of the date of the receipt of this notice in the NCDWQ Central Office. Additional information regarding the Clean Water Act Certification may be reviewed at the NCDWQ Central Office, Wetlands, Buffers, Stormwater Compliance and Permitting Unit, 512 North Salisbury Street, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for certification under Section 401 of the Clean Water Act should do so, in writing, by October 14, 2013 to:

NCDWQ Central Office
Attention: Ms. Karen Higgins
(USPS mailing address): 1650 Mail Service Center, Raleigh, NC 27699-1650

Or,

(physical address): 512 North Salisbury Street, Raleigh, North Carolina 27604

North Carolina Division of Coastal Management (NCDCM): The application included a certification that the proposed work complies with and would be conducted in a manner that is consistent with the approved North Carolina Coastal Zone Management Program. Pursuant to 33 CFR 325.2 (b)(2) the Corps cannot issue a Department of Army (DA) permit for the proposed work until the applicant submits such a certification to the Corps and the NCDCM, and the NCDCM notifies the Corps that it concurs with the applicant's consistency certification. As the application included the consistency certification, the Corps requests, via this Public Notice, concurrence or objection from the NCDCM.

Evaluation

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

Commenting Information

The Corps of Engineers is soliciting comments from the public; Federal, State and local agencies and officials, including any consolidated State Viewpoint or written position of the Governor; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to

determine the need for a public hearing and to determine the overall public interest of the proposed activity.

A copy of this Public Notice and all pertinent plans and specifications can be found at: <http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram/PublicNotices.aspx> or by contacting the Wilmington Regulatory Field Office at (910) 251-4633.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing shall be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

The Corps of Engineers, Wilmington District will receive written comments pertinent to the proposed work, as outlined above, until 5pm, October 27, 2013. Comments should be submitted to David E. Bailey, Wilmington Regulatory Field Office, 69 Darlington Avenue, Wilmington, North Carolina 28403 , at (910) 251-4469.

PROJECT NARRATIVE

MALLARD CREEK
ONSLow COUNTY, NC
AUGUST 2013

I. INTRODUCTION

The proposed addition to Mallard Creek will be a residential housing development located off of NC Hwy 17, just south of Dawson Cabin Road in the Jacksonville area of Onslow County. The wetland and stream impacts are associated with a road crossing to access Section VIII of the Mallard Creek Subdivision. The total impacts includes .746 acres of impacts to Riparian wetlands and 240 linear feet of stream impacts (.03 acres) (total impact acreage of 0.749 acres). The site is currently wooded with small pines and various hardwoods. The timber has been thinned by mechanized mowing in the past five years. The site has been in Timber production for a minimum of 30 years. A portion of the site has been developed for residential development.

II. PAST AUTHORIZATIONS

There are four existing crossing on the site. Crossing 1 was completed in 1994, crossing 2 was completed in 1998, crossing 3 was completed in late 1999, and crossing 4 was completed in 2001 (see Figure). At this time no permits have been identified, and it is assumed that the fill areas were covered under the old Nationwide 26 permit.

Crossing 4 was required by the Onslow County Planning Department to be constructed as an emergency exit to Mallard Creek Section VII. Upon completion of Section VIII the crossing will be required to be paved.

III. PROPOSED PROJECT DESCRIPTION

Mallard Creek Section VIII, a residential subdivision is being developed off of the existing Pekin Drive located off Hwy 17 in Jacksonville, NC. Wastewater disposal on the site will be serviced by septic systems. The project is being constructed based on the previously permitted impacts, and will continue with the proposed impacts to the wetlands and streams upon approval. The purpose of the impacts is to gain access to additional uplands on the site with paved roadways.

IV. EXISTING CONDITIONS

The site has been historically utilized for farm production and contains stands of loblolly pine which vary in age. Mechanized mowing of survey paths has been conducted across the site in a grid type manner.

V. THREATENED AND ENDANGERED SPECIES

Pittman Soil Consulting evaluated the project area for its potential to support federally-listed threatened or endangered species. Species with the federal classification of Endangered or Threatened for such listings are protected under the Endangered Species Act of 1973.

Habitat for these species was identified by reviewing aerial photographs, soil maps, topographic maps, and by walking the site. A search of the NC Natural Heritage Program database was conducted to determine whether any of these species have been observed within or near the project. Based on NCNHP records no species have been observed on the site.

During the site visit the site was evaluated for federally protected species and habitat that could support federally protected species known to occur in the area (Onslow County). The species that are potentially known to occur in Onslow County, and their habitats is discussed in this section.

RED-COCKADED WOODPECKER (*Picoides borealis*)

The red-cockaded woodpecker (RCW) is generally found in old-growth pine forests and prefers mature longleaf pines. The pines that were encountered on the site were young loblolly pines with no real potential for ideal habitat for the RCW. The forested areas adjacent to the site were found to be young loblolly stands with little to no significant habitat for the RCW. Based on the site evaluation suitable habitat for the RCW does not exist on the site.

COOLEY'S MEADOWRUE (*Thalictrum cooleyi*)

Cooley's meadowrue prefers moist to wet bogs and savannas with neutral soils, and is shade-intolerant. The plant flowers in mid- to late June, and since the evaluation was conducted outside of this time frame the presence of this species on the site is based largely on the available habitat. Since the species prefers non-shaded wet sites its habitat cannot be found on the majority of the. Site investigation for the species found no occurrence.

GOLDEN SEDGE (*Carex lutea*)

Golden sedge prefers sandy soils overlying limestone deposits, where the soil pH is between 5.5 and 7.2. The soils are typically very wet and periodically inundated. The soils on the site were found to be mostly Rains which is not a sandy soil, and was found to be somewhat plastic and very sticky clay loam to sandy clay. Site investigation found no occurrence of the species, and no suitable habitat that would support its growth.

PONDBERRY (*Lindera melissifolia*)

Pondberry is a deciduous shrub associated with wetland habitats and generally prefers shaded areas. The only population known to exist in NC is located in Bladen County (USFWS web-site). The most significant threat to the species is known to be drainage ditches and conversion of its habitat. The site investigation found no occurrence of the species.

ROUGH-LEAVED LOOSESTRIFE (*Lysimachia asperulaefolia*)

Rough-leaved loosestrife is a perennial herb that generally occurs on the edges between long leaf pine uplands, and pond pine pocosins. Site investigation found no occurrence of the species, and no suitable habitat that would support its growth.

ATLANTIC STURGEON (*Acipenser oxyrinchus oxyrinchus*)

Atlantic sturgeon are fish that typically live in waters between 10-50m in depth. The waters on the project were found to be less than 12" deep, therefore no suitable habitat was found on the site.³

SHORTNOSE STURGEON (*Acipenser brevirostrum*)

Shortnose sturgeon are fish that typically live in waters between 10-50m in depth. The waters on the project were found to be less than 12" deep, therefore no suitable habitat was found on the site.

LOGGERHEAD SEA TURTLE (*Caretta caretta*)

Loggerhead sea turtles spend most of their lives in the ocean and shallow coastal waters. The waters on the subject site are not suited for this species, because of water depth and the absence of *Sargassum* habitat.

GREEN SEA TURTLE (*Chelonia mydas*)

Green sea turtles depend mostly on seagrass for survival and habitat. Site investigation found no occurrence of the species, and no suitable habitat that would support its growth.

LEATHERBACK SEA TURTLE (*Dermochelys coriacea*)

Leatherback sea turtles are commonly known as pelagic animals, but they also feed in coastal waters. Site investigation found no occurrence of the species, and no suitable habitat that would support its growth.

WEST INDIAN MANATEE (*Trichechus manatus*)

West Indian Manatee are herbivores that feed on a variety of marine, estuarine, and freshwater plants. , but they also feed in coastal waters. Site investigation found no occurrence of the species, and no suitable habitat that would support its growth.

HIRST BROTHERS' PANIC GRASS (*Dichanthelium hirstii*)

This plant grows in grasslands of NC and other habitats in NJ and Ga. Site investigation found no occurrence of the species, and no suitable habitat that would support its growth.

CONCLUSIONS

No rare species were observed within the site at the time of the evaluation. Based on the site conditions and adjacent tracts, the site does not appear to contain habitat suitable for threatened and endangered species known to occur in Onslow County.

VI. ALTERNATIVE ANALYSIS

The alternatives evaluated for this site include a no-action alternative, no-permit alternative, and an off-site alternative.

NO-ACTION ALTERNATIVE

The no-action alternative would keep the site in its current, undeveloped condition. The no-action alternative is not considered to be feasible for several reasons. This alternative would leave the remainder of the site undevelopable and would leave large acreage of uplands with no access from the rest of the site. The inability to expand development would be a significant loss of return for the owner.

NO-PERMIT ALTERNATIVE

The no-permit alternative would mean that the site is developed using practices that would not require any impacts to waters of the US, including wetlands. This alternative would require a bridge to be built where the proposed impacts are proposed, and would eliminate the fill of approximately 0.048 acres of wetlands and streams. This would require that a NCDOT bridge be installed on the site in order for the NCDOT to take over the roads upon completion of the project. The cost associated with an NCDOT bridge has been estimated at approximately \$500,000.00, per bridge. The site will only yield 33 residential lots therefore it is not economically feasible to construct the bridge and develop the lots. Estimated lot values at this time are \$30,000.00 grossing \$990,000.00, minus development and land cost of approximately \$500,00.00. The no-permit alternative has been estimated to cost the owner \$500,000.00 in additional expenses, and would be a loss with land and development cost, therefore is not considered to be a viable alternative.

OFF-SITE ALTERNATIVE

The Mallard Creek development has been established for almost 20 years, and the addition of Section VIII is the only viable property to continue the development. The Section VIII tract has been owned by the developer for several years, and is the economically feasible site to continue the development. The only other parcel that could join the current development is to the south and is owned by Perry Batchelor. Based on the 2012 aerial photograph more impacted to wetlands would be needed to develop this tract.

In conclusion it is my opinion that the off-site alternative would not be feasible because adjacent tracts would require acquisition of property at an additional cost and more wetland impacts.

VII. MITIGATION

Mitigation for the proposed wetland and stream impacts will be made by payment to the Bachelors Delight Mitigation Bank for the restoration of 80% of stream impacts and purchase of .048 acres of riparian wetland credits.

VIII. Conformance of the proposed Project with NC's Coastal Management Program

The project is not located within an area of environmental concern (AEC), and will not affect resources within an AEC.

General Policy Guidelines for the Coastal Area

The proposed project's conformance with 15A NCAC 07M .0700 and 15A NCAC 07M .0800 is as follows:

15A NCAC 07M .0700-The proposed project is not located in an AEC, but does contain water bodies that eventually flow into coastal waters. The proposed impacts to wetlands and streams on the project have been minimized by various construction practices and devices. Headwalls have been proposed to limit the amount of impacts and stormwater management ponds have also been proposed to collect and treat storm water prior to discharge into waters. Alternative analysis's provided show that adjacent sites to the proposed project would still require wetland and stream impacts.

Where impacts are proposed, mitigation has also been proposed as payment into the Bachelors Delight mitigation bank to account for losses of high quality wetland and stream areas.

15A NCAC 07M .0800

The project is not located within an AEC, but water quality preservation practices are still needed. As discussed, a stormwater management plan for the site will greatly increase the water quality and hopefully remove pollutants that may be present in the developed areas.

NC Dredge and Fill Law

The proposed project will not involve any aspect of the NC Dredge and Fill Law.

It is my opinion that the site is in concurrence with 15A NCAC 07M .0700 and 15A NCAC 07M .0800 and with all other aspects of the NC Coastal Area Management Act and the NC Dredge and Fill Law.

IX. LAND USE PLAN

The site is currently zoned RA for residential development by the Onslow County Planning Board. The current Land Use Plan shows that the site is currently vacant, therefore the proposed use is not in conflict with the current classification

I. OTHER REQUIRED APPROVALS

Permits from the NC Division of Water Quality and Land Quality will be needed for the proposed project. The permits that will be required are storm water and erosion and sedimentation control.

An archeological survey was conducted on the property and no occurrence was found.

NCSHPO was notified of the project on July 29, 2011.

The USFWS was notified on September 9, 2013 about the project.

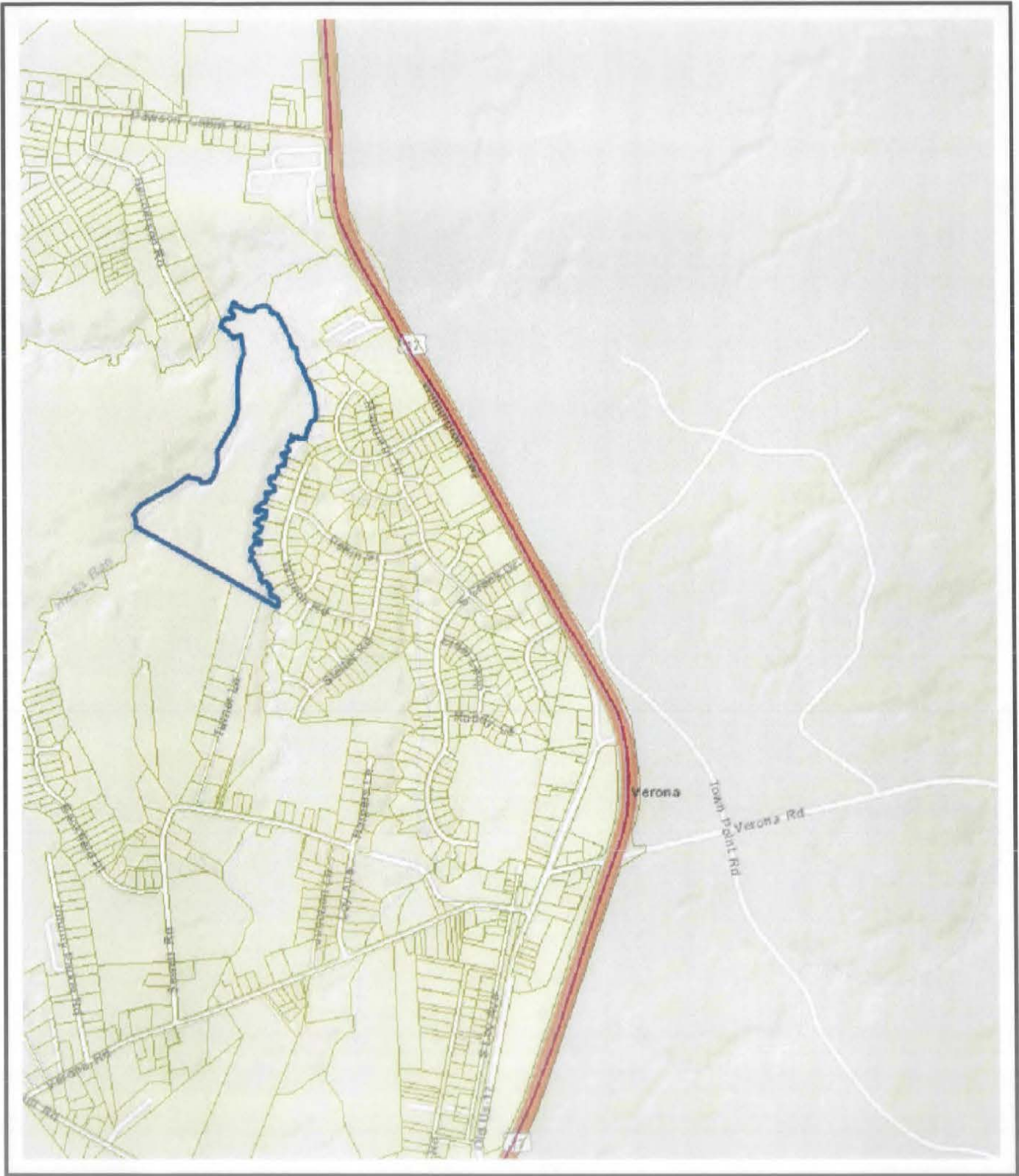
LIST OF FIGURES AND APPENDICES

Mallard Creek ONSLow COUNTY, NC

FIGURE 1	VICINITY MAPS
FIGURE 2	TOPOGRAPHIC MAP
FIGURE 3	NRCS SOILS MAP
FIGURE 4	2010 ONSLOW COUNTY GIS AERIAL PHOTOGRAPH
FIGURE 5	OFF-SITE ALTERNATIVE Perry Batchelor
FIGURE 6	EXISTING IMPACTS
FIGURE 7	PROPOSED IMPACTS
APPENDIX A	LIST OF ADJACENT PROPERTY OWNERS

FIGURE 1

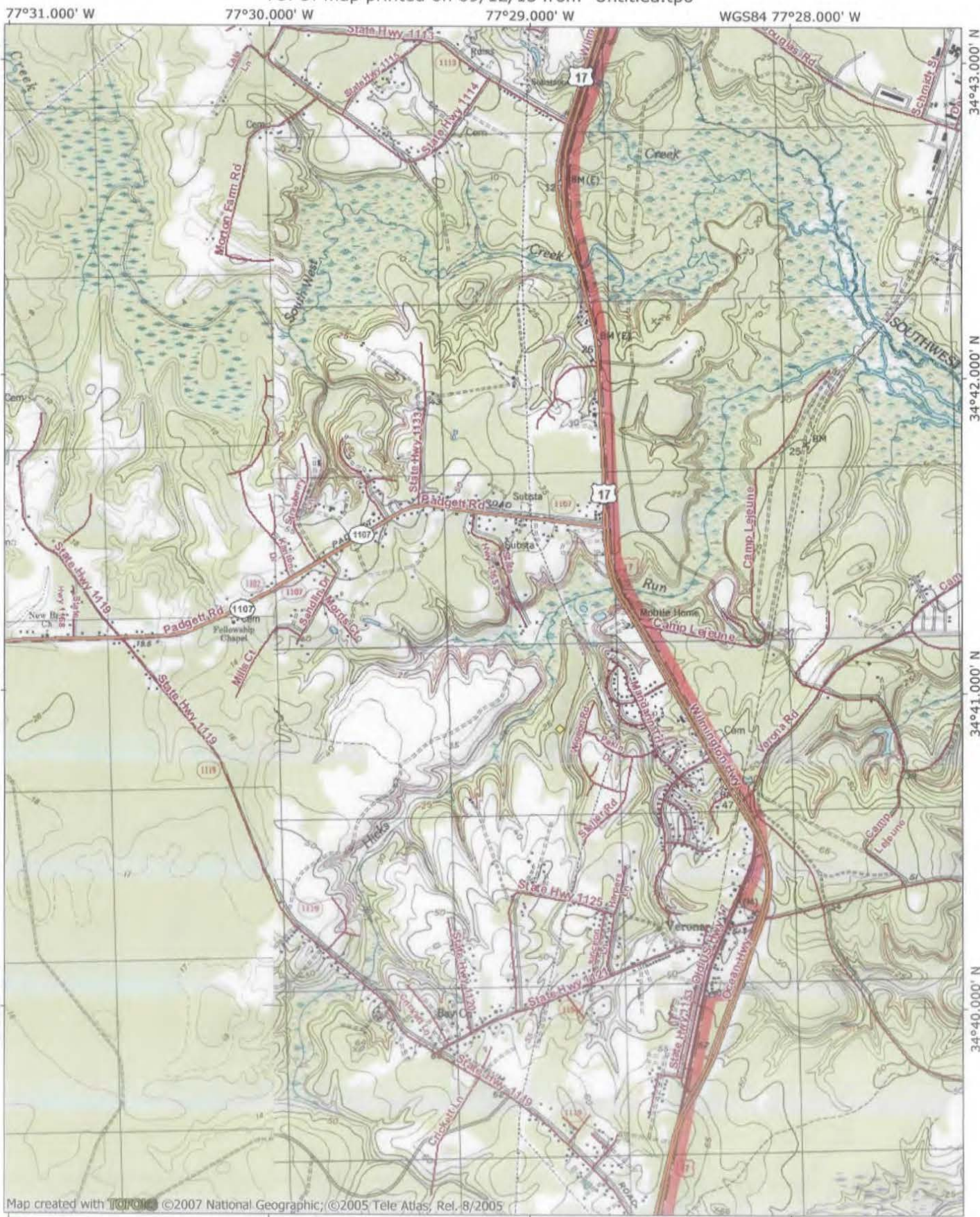




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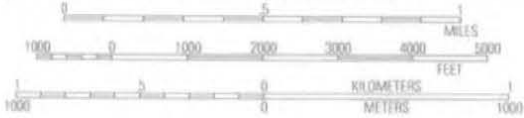
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FIGURE 2



Map created with TOPO! ©2007 National Geographic; ©2005 Tele Atlas, Rel. 8/2005

77°31.000' W 77°30.000' W 77°29.000' W WGS84 77°28.000' W



MN TN
9 1/2°
09/12/13

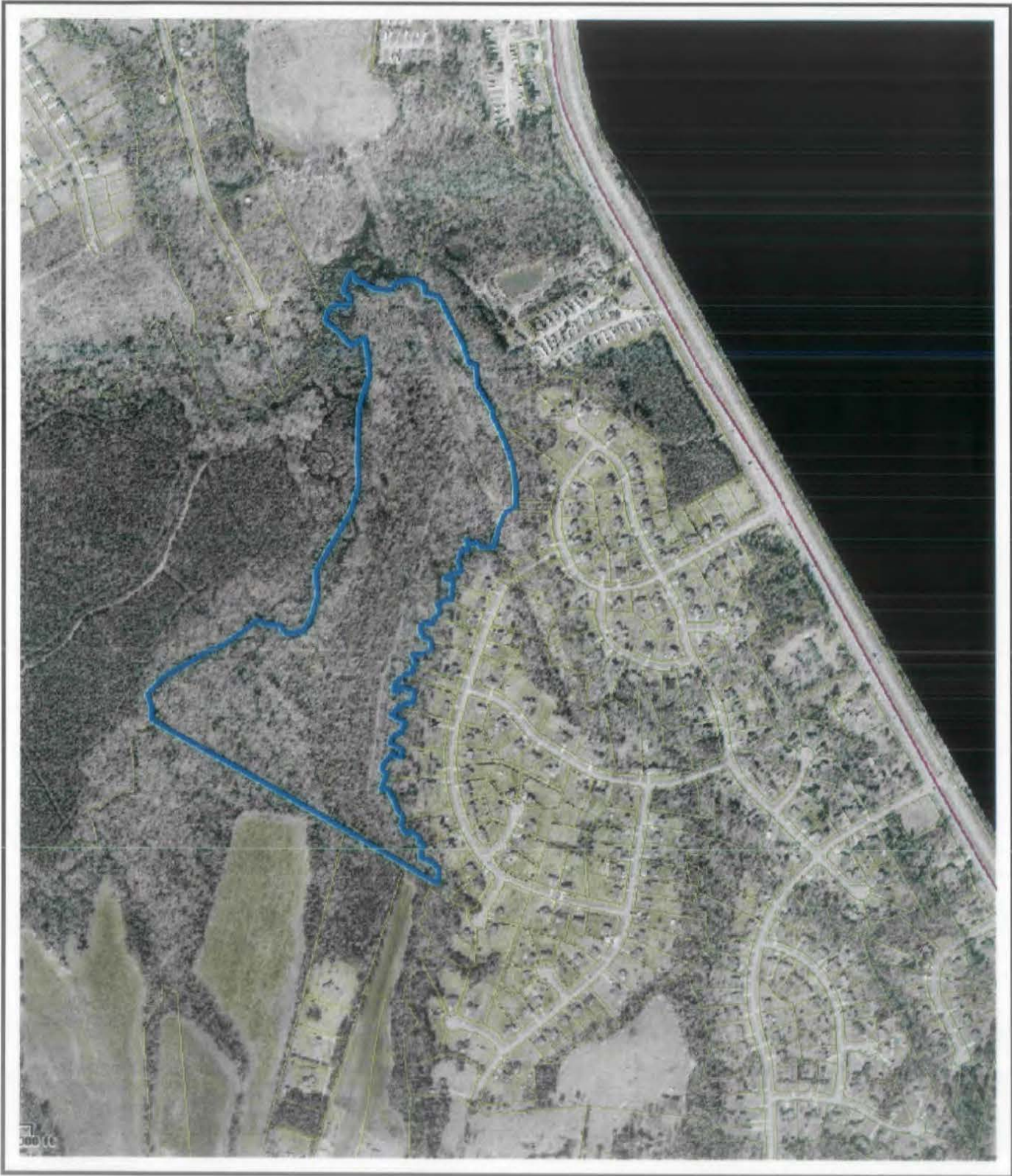
FIGURE 3



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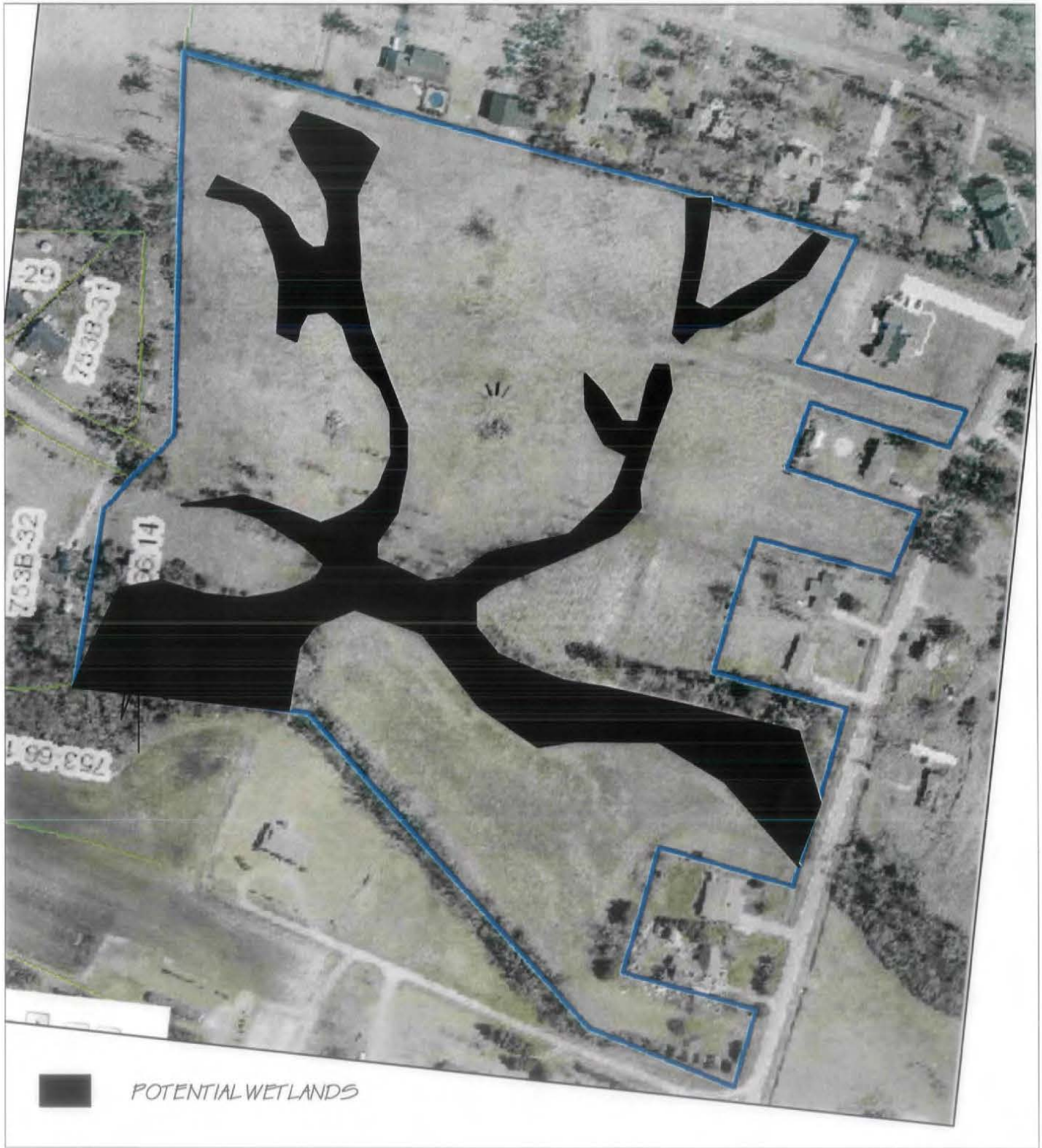
FIGURE 4



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FIGURE 5



MALLARD CREEK

OFF SITE ALTERNATIVE

PITTMAN SOIL CONSULTING

PERRY BATCHELOR TRACT

1003 GREGORY FORK RD.
 RICHLANDS, NC 28574
 PHONE-910.340.2784

© 2010 PSC

SHEET:

1 OF 1

DATE:

9-1-12

SCALE:

1:200

DRAWN BY:

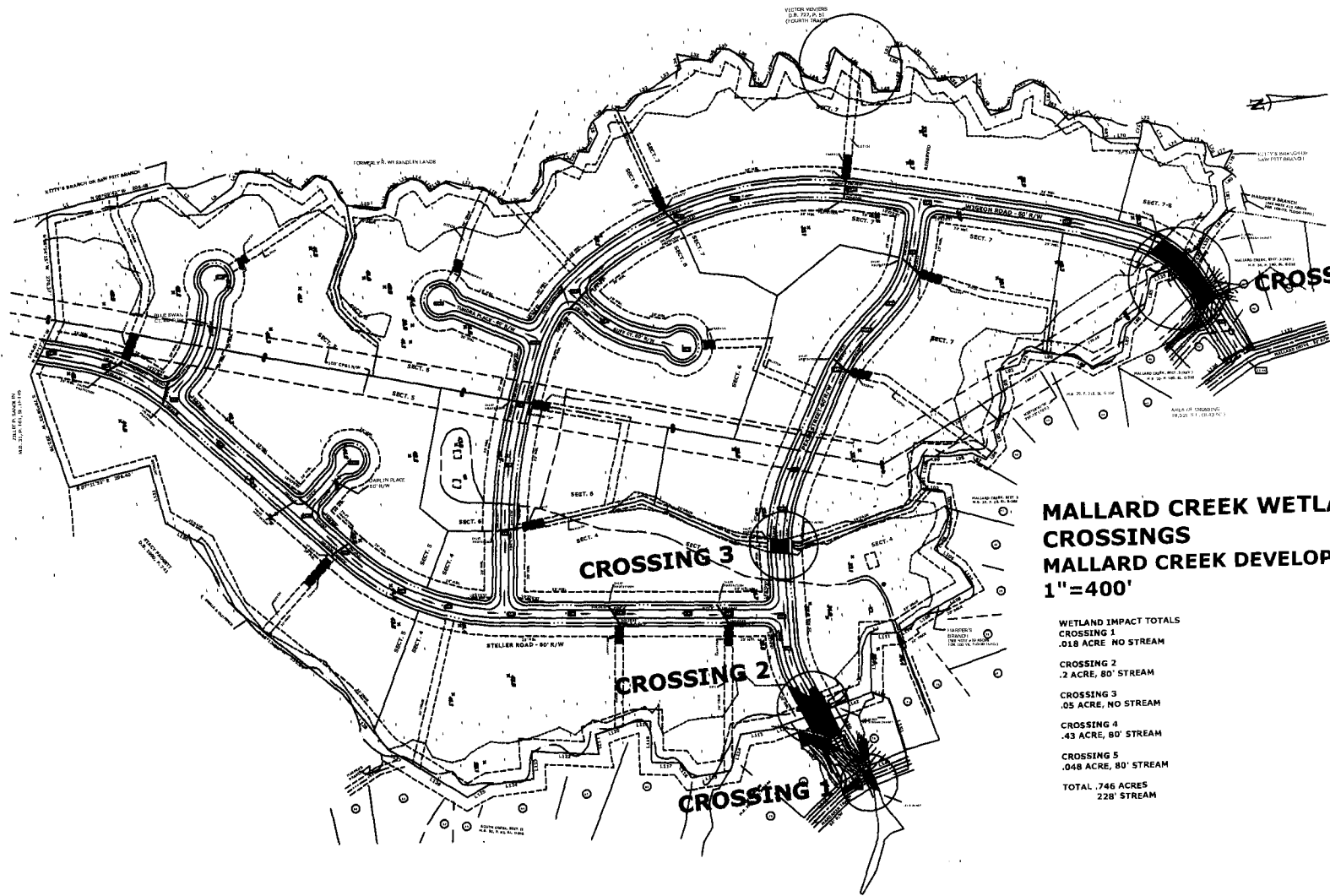
PSC

FILENAME:

DIT

FIGURE 6

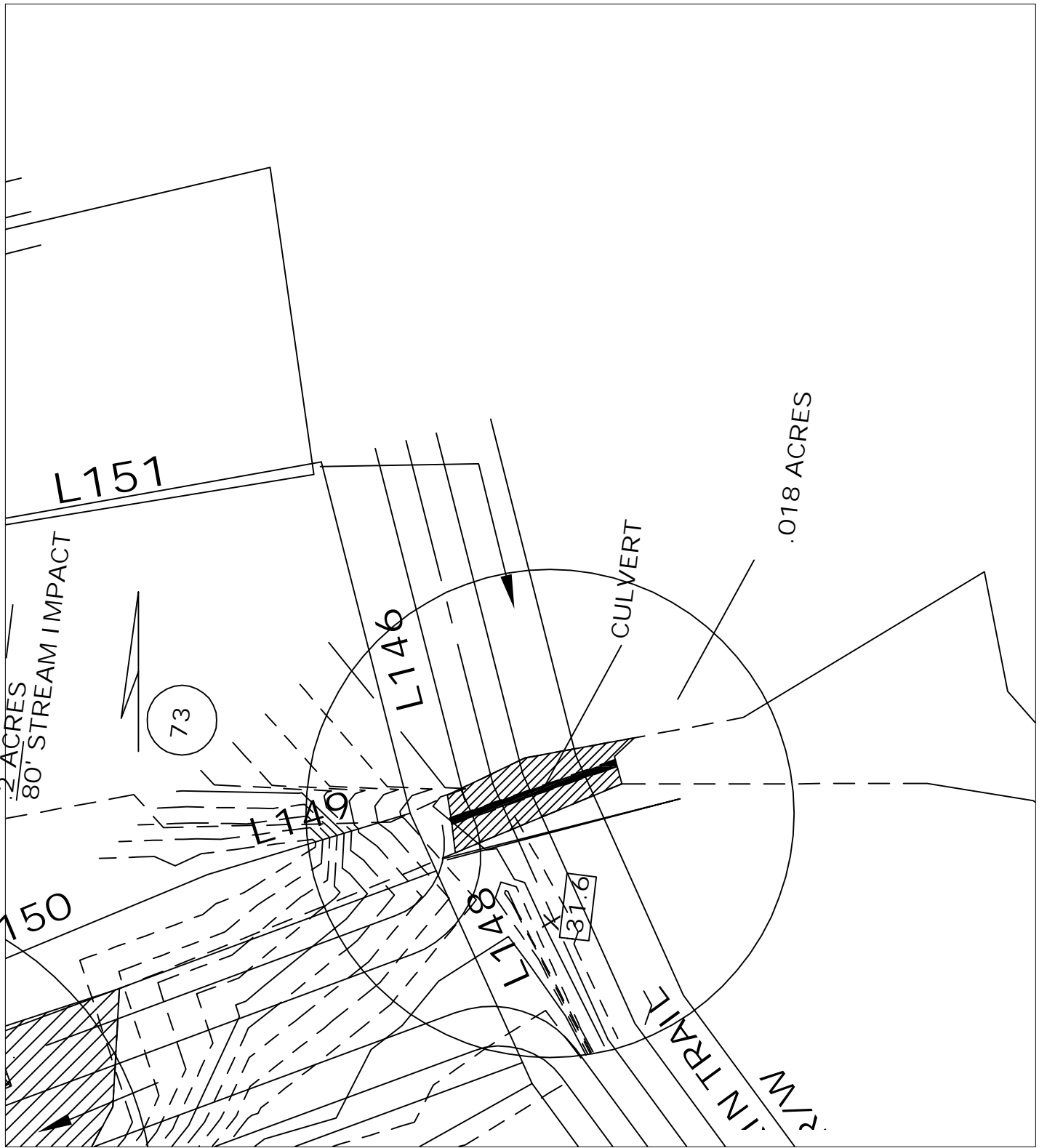
**CROSSING 5
NEW CROSSING**



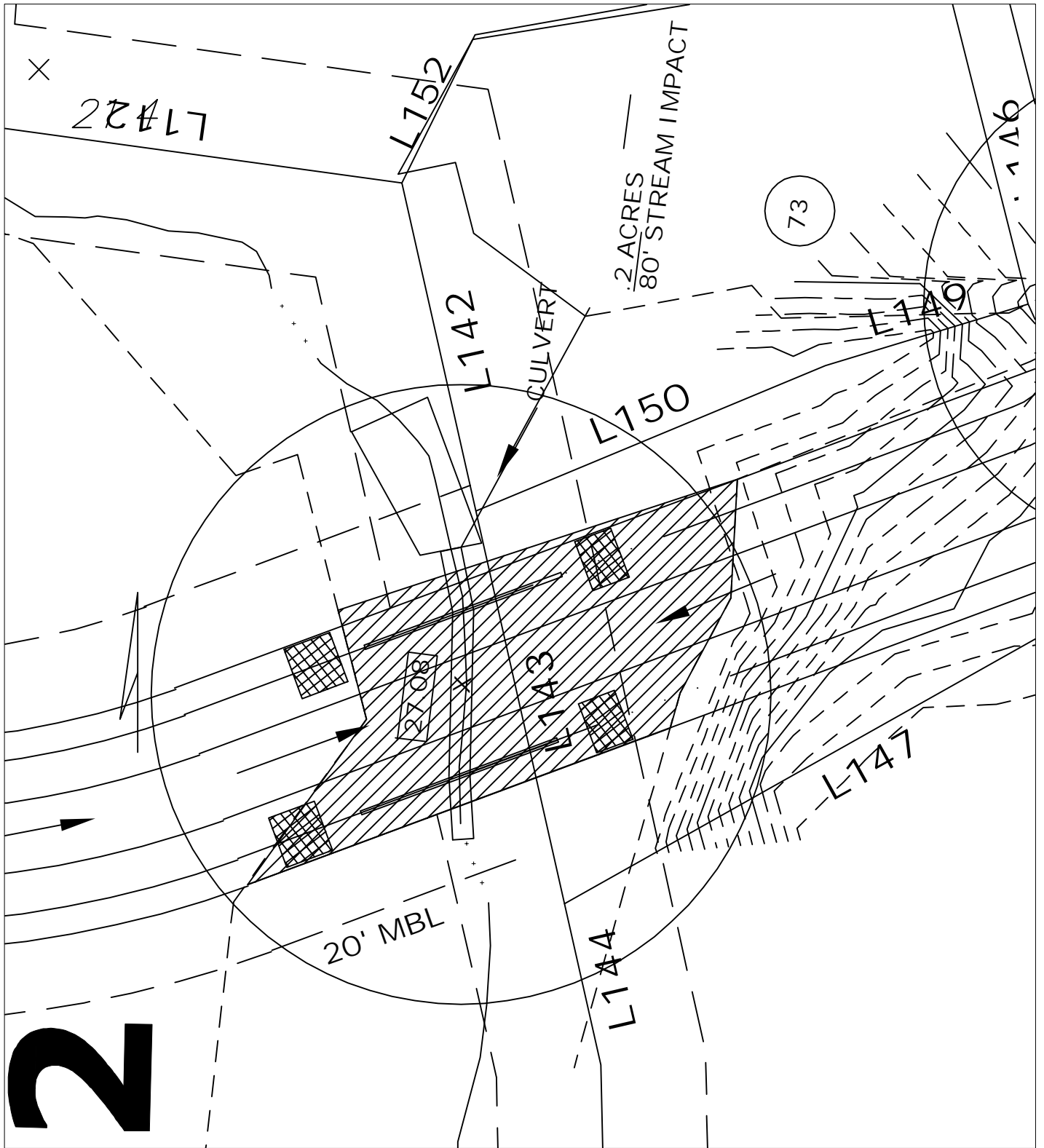
**MALLARD CREEK WETLAND
CROSSINGS
MALLARD CREEK DEVELOPERS INC
1" = 400'**

WETLAND IMPACT TOTALS

CROSSING 1	.018 ACRE, NO STREAM
CROSSING 2	.2 ACRE, 80' STREAM
CROSSING 3	.05 ACRE, NO STREAM
CROSSING 4	.43 ACRE, 80' STREAM
CROSSING 5	.048 ACRE, 80' STREAM
TOTAL	.746 ACRES 228' STREAM



NOTICE		MALLARD CREEK		EXISTING WETLANDS CROSSING	
<p>THIS DRAWING APPLIES ONLY TO THE SITE SPECIFIED HEREIN, ANY OTHER USE IS PROHIBITED. NO PART IS TO BE COPIED, MODIFIED, REDRAWN OR USED OTHER THAN INDICATED HEREIN. ANY VIOLATION WILL BE A DIRECT COPYRIGHT INFRINGEMENT AND IS CONSIDERED ILLEGAL USAGE.</p>		CROSSING #1		PITTMAN SOIL CONSULTING	
				1073-1 GREGORY FORK RD. RICHLANDS, NC 28574 PHONE-910.340.2784 FAX-910.324.3180	
		DATE: 6-15-10		SCALE: 1=40	
				© 2010 PSC SHEET: 1 OF 1	
				FILENAME: DHP	



MALLARD CREEK

CROSSING #2

PITTMAN SOIL CONSULTING

EXISTING
WETLANDS
CROSSING

1073-1 GREGORY FORK RD.
RICHLANDS, NC 28574
PHONE-910.340.2784
FAX-910.324.3180

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SHEET:

1 OF 1

DATE:

9-1-13

SCALE:

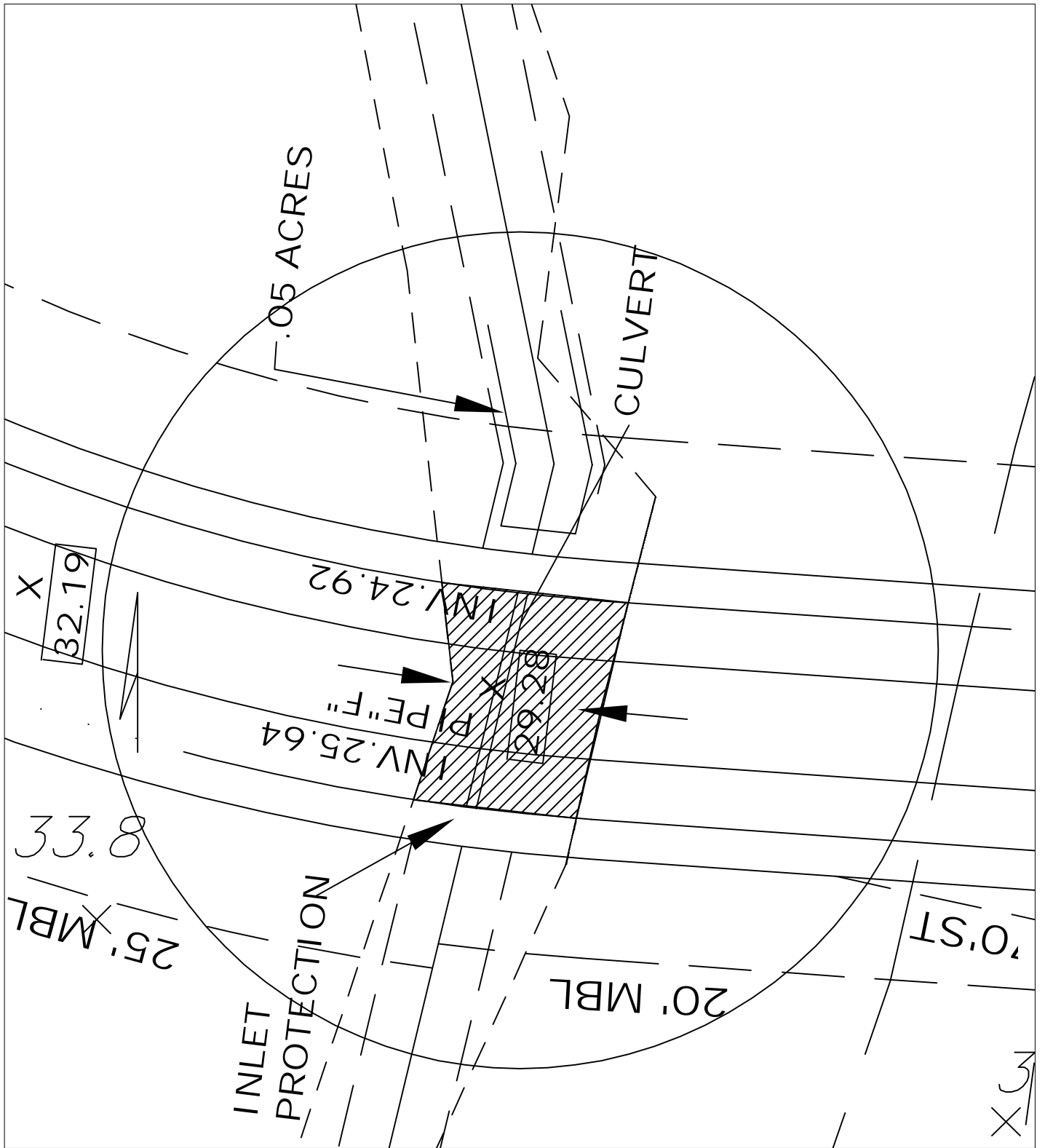
1=40

DRAWN BY:

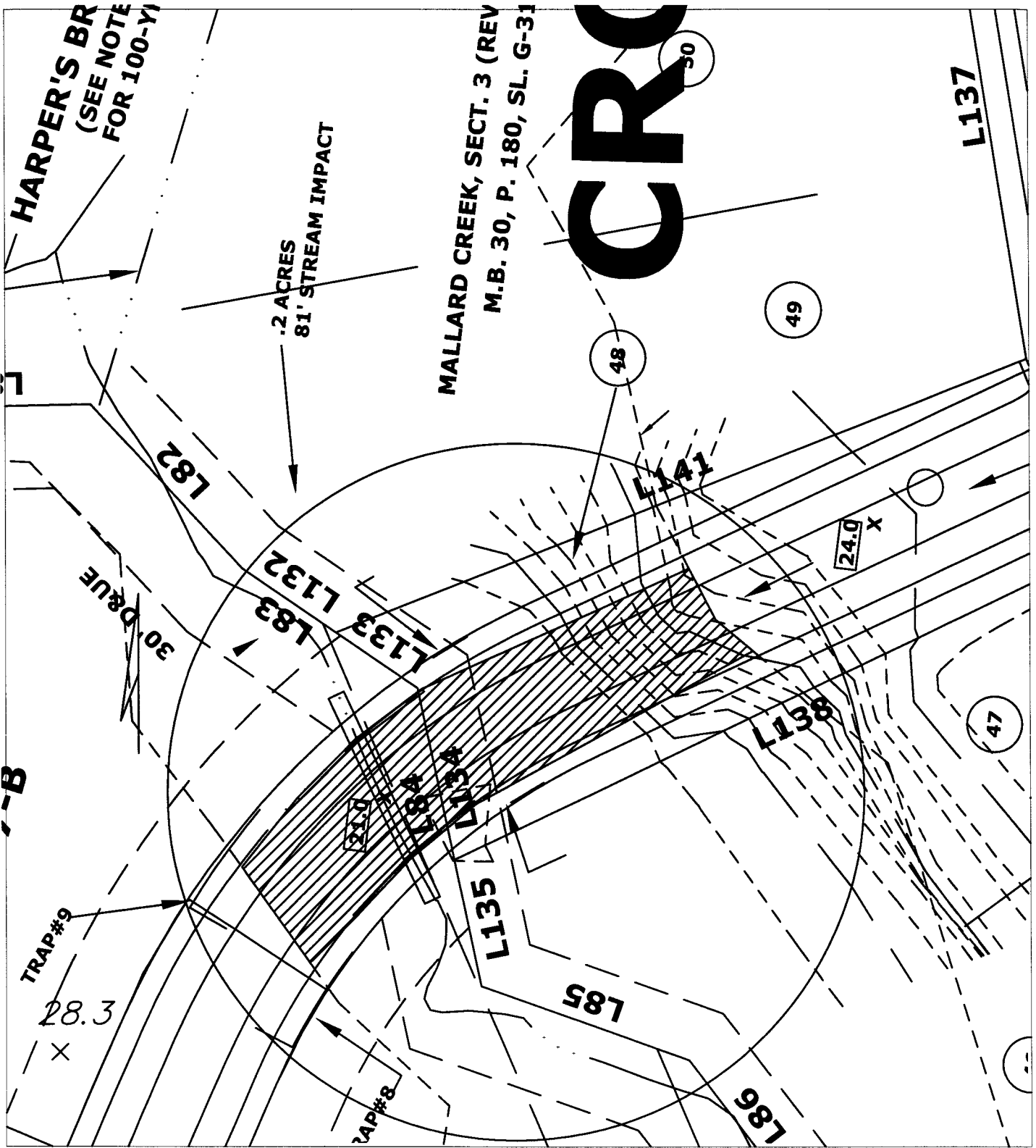
PSC

FILENAME:

DHP

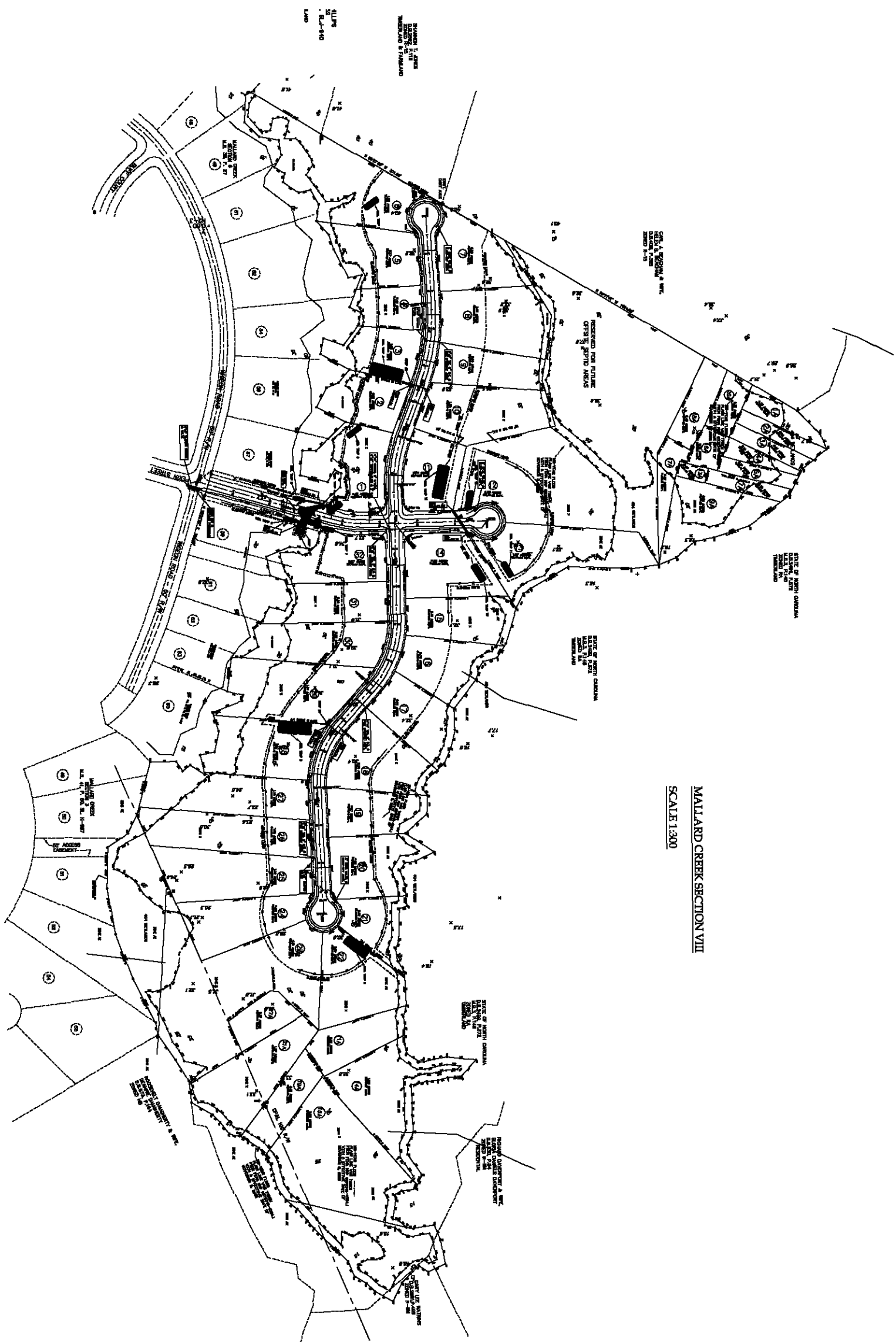


MALLARD CREEK		EXISTING WETLANDS CROSSING
CROSSING #3	PITTMAN SOIL CONSULTING	
		1073-1 GREGORY FORK RD. RICHLANDS, NC 28574 PHONE-910.340.2784 FAX-910.324.3180
DATE:	SCALE:	DRAWN BY:
9-1-13	1"=40'	PSC
		FILENAME:
		© 2010 PSC SHEET: 1 OF 1 DHP



MALLARD CREEK		EXISTING WETLANDS CROSSING
CROSSING #4	PITTMAN SOIL CONSULTING	
1075-1 GREGORY FORK RD. RICHLANDS, NC 28574 PHONE-910.340.2184 FAX-910.324.3180		© 2010 PSC
DATE:	SCALE:	SHEET:
9-1-13	1-40	1 OF 1
DRAWN BY:		FILENAME:
PSC		DHP

FIGURE 7



MALLARD CREEK SECTION VIII
 SCALE 1:300

DATE: 11/18/00
 DRAWN BY: [illegible]

REDAI & ASSOCIATES, INC.
 1000 [illegible] [illegible] [illegible]

REDAI & ASSOCIATES, INC.
 1000 [illegible] [illegible] [illegible]

RESERVED FOR FUTURE
 OPEN SPACE

STATE OF NORTH CAROLINA
 [illegible] [illegible] [illegible]

STATE OF NORTH CAROLINA
 [illegible] [illegible] [illegible]

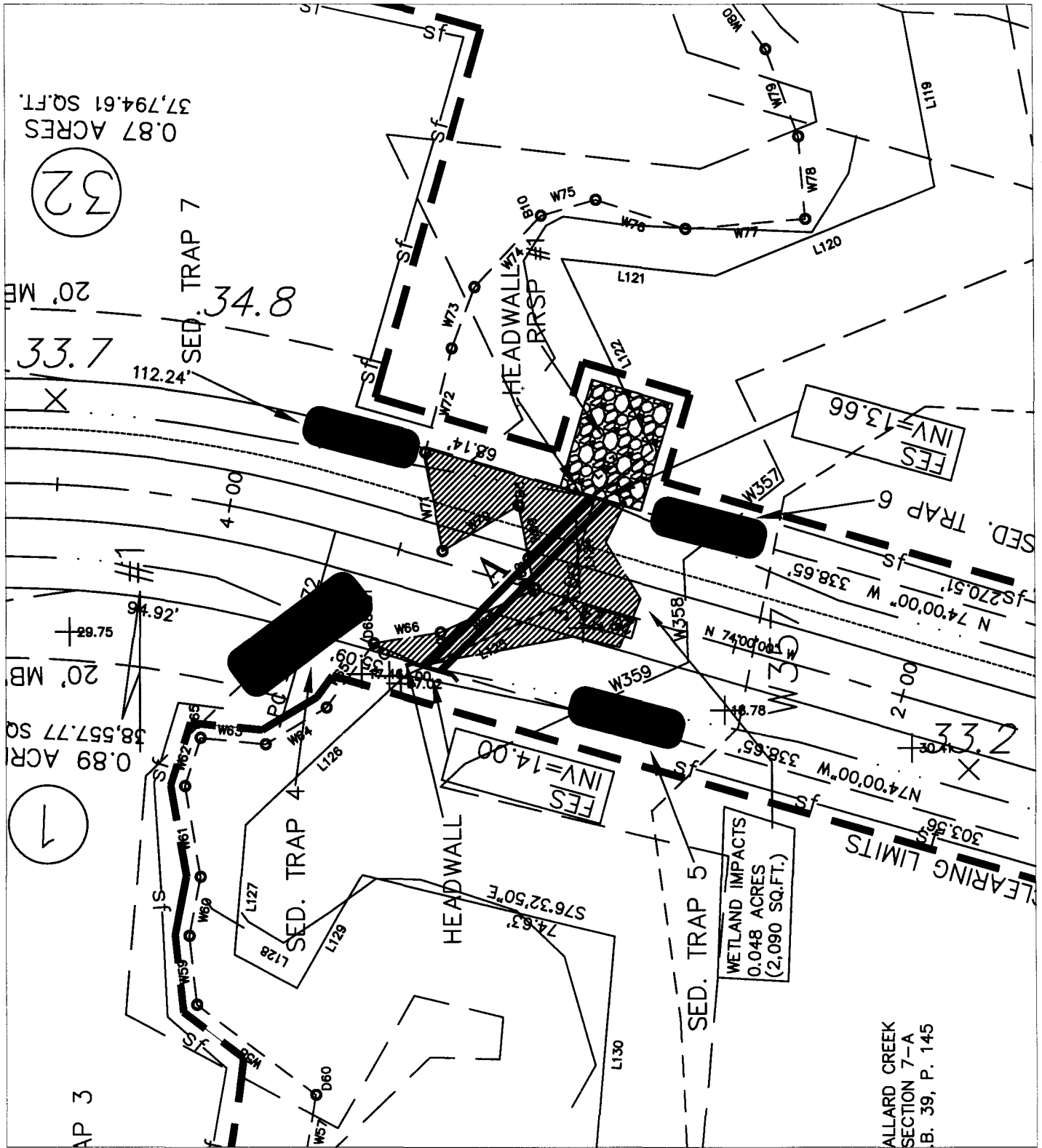
STATE OF NORTH CAROLINA
 [illegible] [illegible] [illegible]

REDAI & ASSOCIATES, INC.
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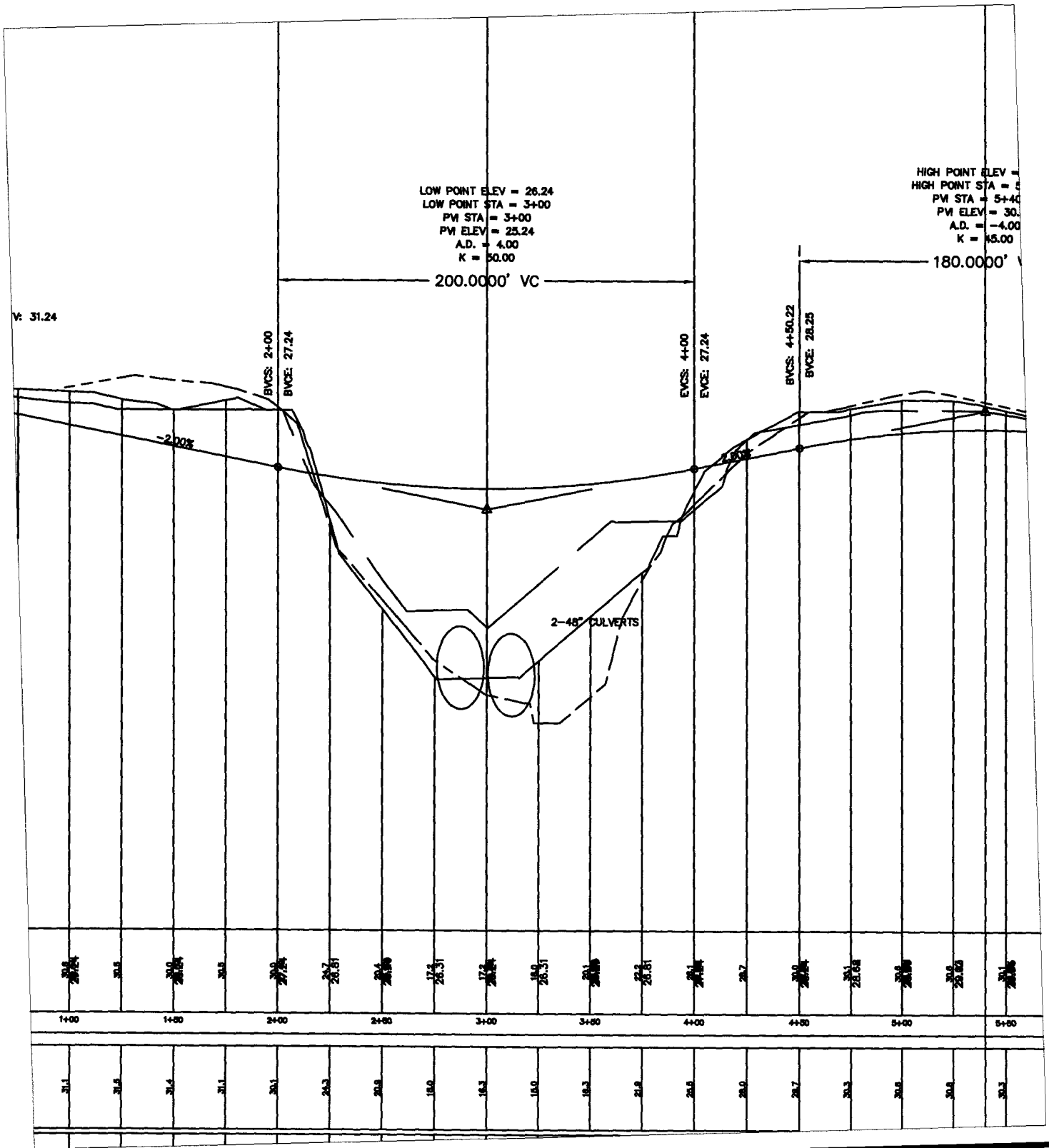
BY ACCESS
 EASEMENT

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[illegible] [illegible] [illegible]



MALLARD CREEK		EXISTING WETLANDS CROSSING
CROSSING #5 PROPOSED NEW CROSSING	PITTMAN SOIL CONSULTING	
1075-1 GREGORY FORK RD. RICHLANDS, NC 28574 PHONE-910.340.2184 FAX-910.324.3180		© 2010 PSC SHEET:
DATE: 9-1-12	SCALE: 1"=40'	DRAWN BY: PSC
		FILENAME: D11P



MALLARD CREEK

CROSSING #5
 PROPOSED NEW CROSSING

PITTMAN SOIL CONSULTING

EXISTING
 WETLANDS
 CROSSING

1073-1 GREGORY FORK RD.
 RICHLANDS, NC 28574
 PHONE-910.340.2784
 FAX-910.324.3180

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SHEET:

1 OF 1

DATE:

9-1-13

SCALE:

1-40

DRAWN BY:

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DMP