

Alternative Analysis – Kroger Grocery Store Complex
Chesterfield County, Virginia.

The purpose of this project is to provide a Kroger Grocery Store Complex in the Courthouse Area of Chesterfield County, Virginia. In evaluating the alternatives, Kroger implemented our “Customer 1st Strategy” which focuses on providing convenient store locations at high traffic corners for customers within a 2.0 to 2.5 mile radius of the store locations with a “one-stop shop” approach.

Considering the purpose of the project, we evaluated 4 alternatives: No Build Alternative, Courthouse Road Alternative, Lori Road Alternative and Greenyard Road Alternative. We have evaluated the site access, parking requirements, stormwater management requirements, site utilities, and possible construction techniques. We determined that all 3 alternatives have similar requirements and were not substantially different from each other. The following discusses the differences in impacts to aquatic resources between the alternatives evaluated.

No Build Alternative:

This Alternative evaluated the use of existing infrastructure to house the Kroger store in the Courthouse Area of Chesterfield County, Virginia. This approach would not involve discharges of dredged or fill material into waters of the United States, including wetlands because it would use existing commercial space. Evaluation of the existing commercial properties in this area, did not find any locations with sufficient square foot area or facilities matching the benefits of location expressed as the purpose of this project. As a result, this Alternative was dismissed as a practicable alternative.

Iron Bridge Road Alternative (Attachment 1)

The preferred Alternative would construct a 123,000 square foot Kroger Grocery Store complex that includes fuel pumps and 38,525 square feet shop space with parking. After our initial screening, the U.S. Fish and Wildlife Service National Wetland Inventory Map (Enclosure 1) indicated the site was 40% PFO wetlands. In addition, there are a series of intermittent and perennial streams on this property and the Chesterfield County GIS depicts Chesapeake Bay Resource Protection Area adjacent to the project site along this same stream system. As a result there would be impacts to Resource Protection Areas under Chesapeake Bay Preservation Act and impacts to PFO wetlands. This Alternative would involve discharges that would have greater adverse impact to waters of the United States, including wetlands than the preferred Alternative. Based on this information, this Alternative was dismissed as a practicable alternative for the impacts to aquatic resources.

Lori Road Alternative (Attachment 2)

This Alternative would construct a 123,000 square foot Kroger Grocery Store complex that includes fuel pumps and 38,525 square feet shop space with parking. The project would potentially impact 3.67 acres of wetlands. There were no perennial streams identified on-site so, as a result, no impacts to Resource Protection Areas under the Chesapeake Bay Preservation Act would occur. This Alternative would involve discharges that would have greater adverse impact to wetlands than the preferred Alternative. Based on this information, this Alternative was dismissed as a practicable alternative for the impacts to aquatic resources.

<p>U.S. Army Corps of Engineers Norfolk District Regulatory Branch Received by KRG Date: February 10, 2014</p>
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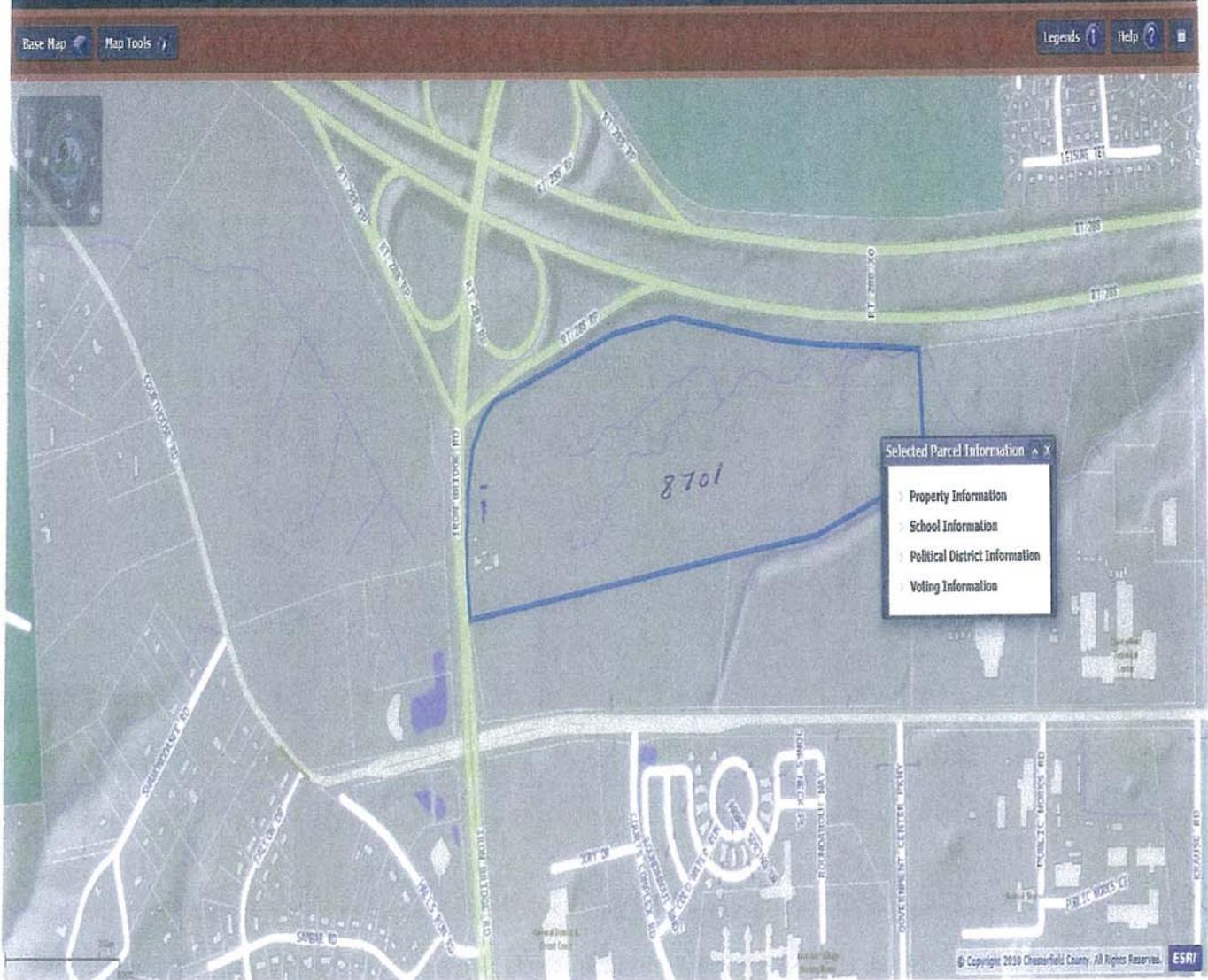
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Chesterfield County, Virginia.

Greenyard Road Alternative (Attachment 3)

The preferred Alternative proposed to construct 113,531 square foot Kroger Grocery Store complex that includes fuel pumps and 7,800 square feet of shop space with parking. The project impacts 1.137 acres of wetlands. There were no perennial streams determined to exist on-site so, as a result, no impacts to Resource Protection Areas under Chesapeake Bay Preservation Act will occur. Based on this information this Alternative is considered the least environmentally damaging alternative and was proposed in the permit application as the practicable alternative because it minimized impacts to aquatic resources and meets the purpose of the project.

The consequences on the public of not implementing the project would result in the citizens in the area of the Chesterfield Courthouse Area of Chesterfield County, Virginia losing job opportunities and lack of customer grocery options close to home. Kroger is among America's largest grocery store employers subsequently not building a Kroger Grocery store would not add job opportunities in this area of Chesterfield County. Secondly, Kroger believes in giving its customers close to home grocery options from national brand to their highly respected corporate brands which give the consumer options on types of food products at reasonable prices. Thirdly, Kroger is rolling out a nationwide program that lets loyalty card holders select charities to which Kroger will donate which allows the customer to easily contribute to favorite local causes such as schools and other nonprofits. The Kroger donation program is based on local shoppers' charitable preferences, and as a result, local charities in this area of Chesterfield County would miss out on this opportunity.

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IRON BRIDGE ROAD ALTERNATIVE (ATTACHMENT 1)

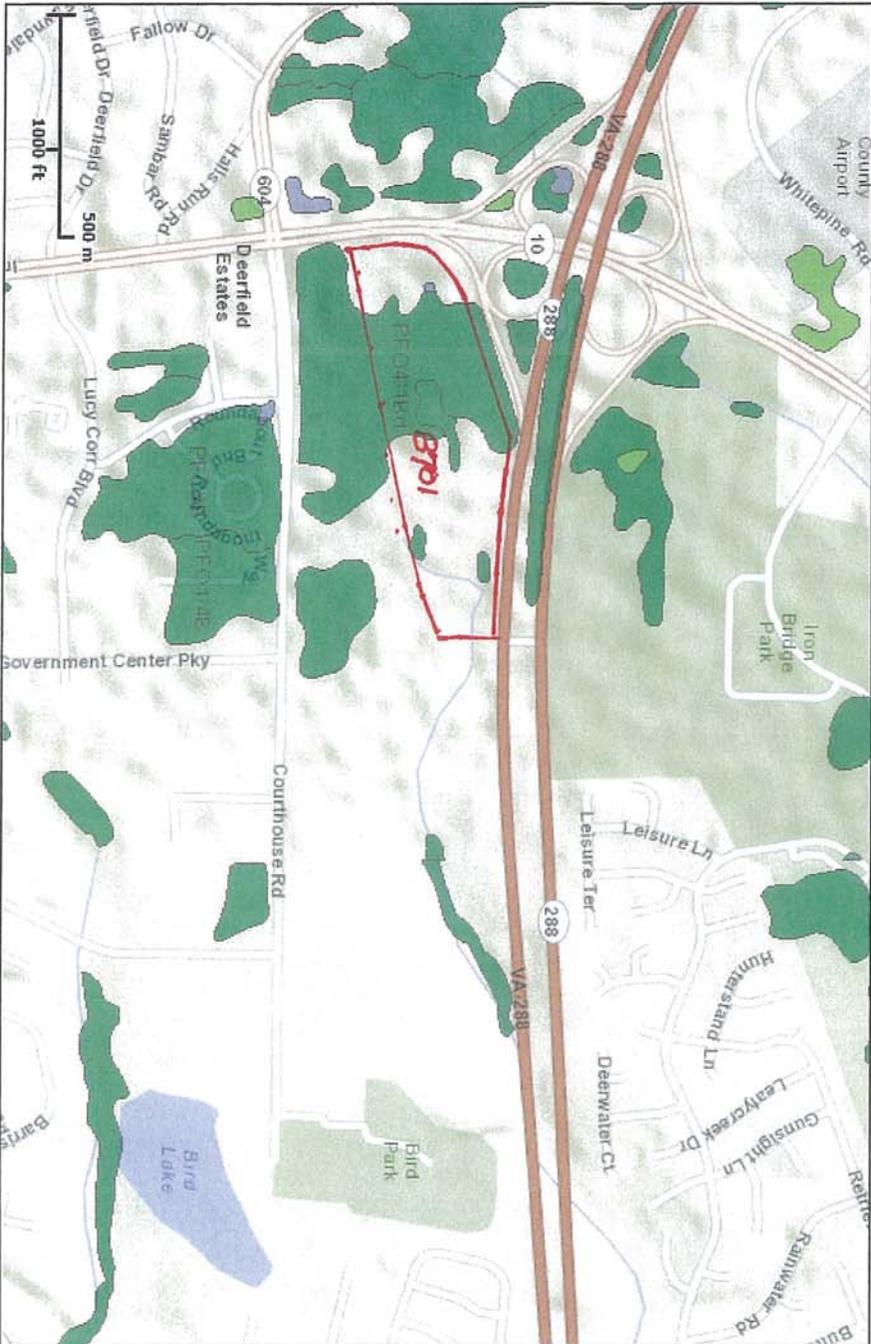
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U.S. Fish and Wildlife Service

National Wetlands Inventory

Feb 7, 2014



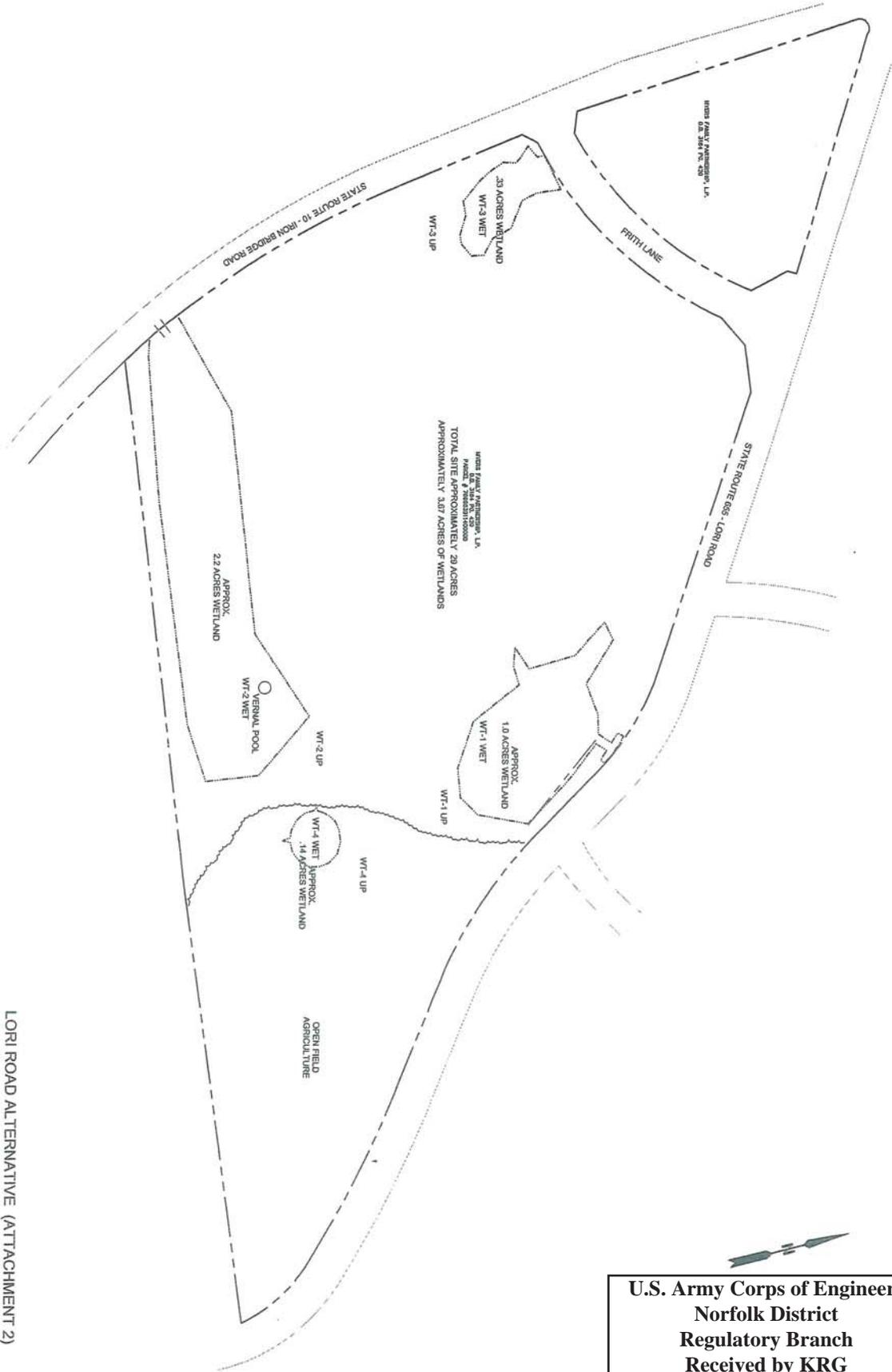
- Wetlands**
- Freshwater Emergent
 - Freshwater Forested/Shrub
 - Estuarine and Marine Deepwater
 - Estuarine and Marine
 - Freshwater Pond
 - Lake
 - Riverine
 - Other

User Remarks:

IRON BRIDGE ROAD ALTERNATIVE (ENCLOSURE 1)

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

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WETLAND BOUNDARY IS APPROXIMATE
 SITE BOUNDARY IS APPROXIMATE
 TAKEN FROM CHESTERFIELD COUNTY GIS

LORI ROAD ALTERNATIVE (ATTACHMENT 2)

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WETLAND DELINEATION CONDUCTED BY RICHARD WILEY, CES

29 ACRE SITE
 MYERS FAMILY PARTNERSHIP, LP. LORI ROAD

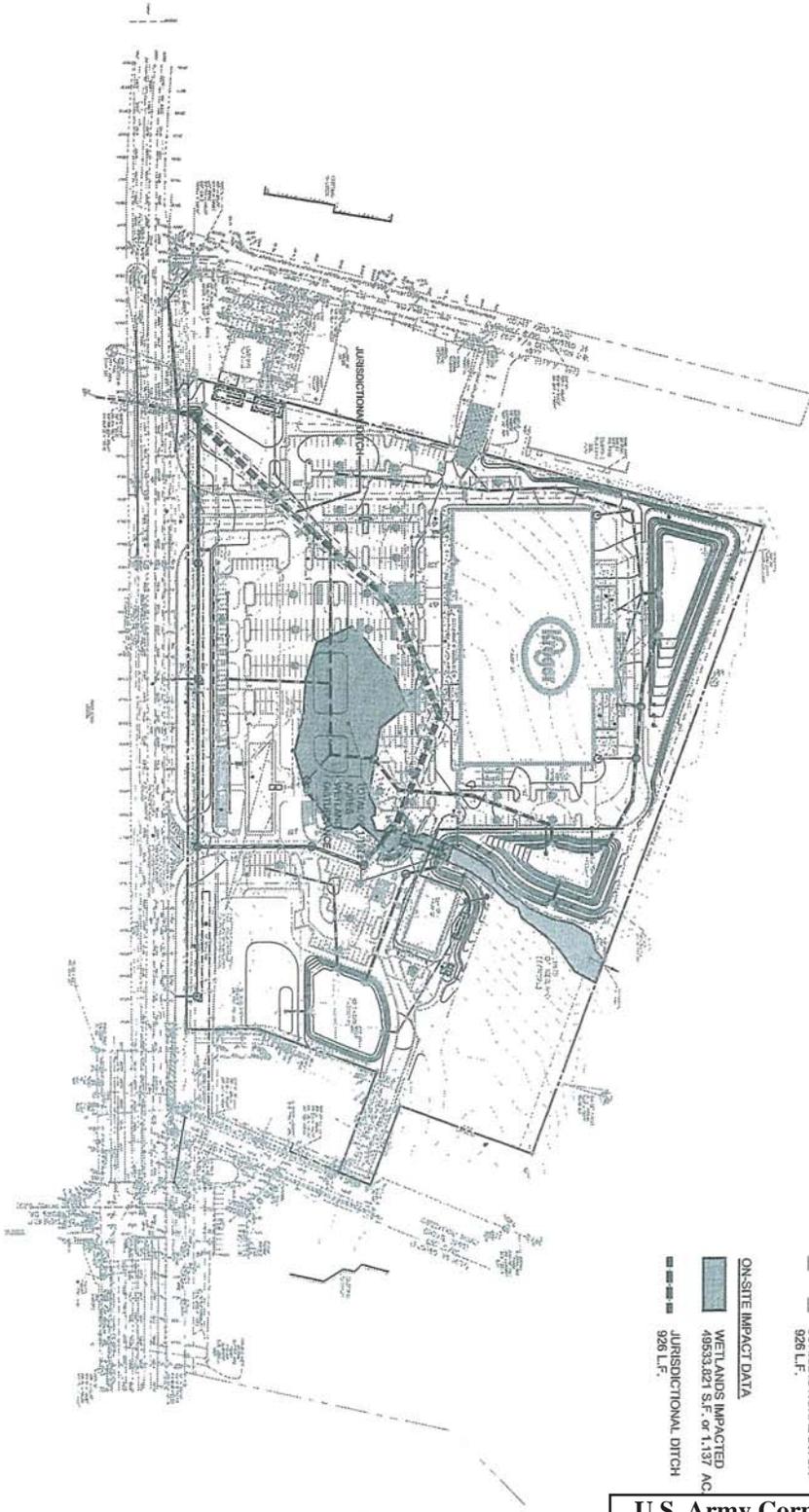
CHESTERFIELD COUNTY, VIRGINIA

SHEET	PLAN REVISIONS -
OF	
SCALE	
1"=100'	

PROPOSED WETLAND IMPACT PLAN



GREENYARD ROAD ALTERNATIVE (ATTACHMENT 3)



- ON-SITE DATA**
- WETLANDS 602225 S.F. or 1.38 AC.
 - JURISDICTIONAL DITCH 926 L.F.
- ON-SITE IMPACT DATA**
- WETLANDS IMPACTED 49533,821 S.F. or 1,137 AC.
 - JURISDICTIONAL DITCH 926 L.F.

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SHEET NUMBER CP-9a	DATE 12-04-13	PROJECT NUMBER 13-168	SHEET TITLE PROPOSED WETLAND IMPACT PLAN	EXTENSIONS	PROPOSED KROGER R524 CHESTERFIELD COUNTY, VIRGINIA	FOR KROGER MID-ATLANTIC P.O. BOX 14002, ROANOKE, VA 24038 (540) 563-3645		3480 Preston Ridge Road - Suite 275 - Alpharetta, Georgia 30005 770-674-2000 - Fax: 678-319-0745
	PROPOSED WETLAND IMPACT PLAN							

AVOIDANCE AND MINIMIZATION

Efforts within the site design were made to minimize the impact to the project wetland areas. Several planned layouts were created for the Kroger's store, fuel center, retail shops, and out parcels.

The primary initial plan for the property development (22AC) was Kroger at 113,531SF with retail shops at 20,600SF, 9 pump fuel center and 2 out parcels at 2.2AC. The plan provided 673 parking stalls to meet the minimum required parking of 609.

This plan impacted the entire length of the jurisdictional ditch and 1.35AC of the 1.38AC of wetlands on the property. Retail shops, parking area and stormwater detention pond caused the impact.

The overall development concept was re-designed several times to strategically reduce the wetland impacts. The Kroger store was re-positioned and retaining walls introduced along driveways and parking areas to shifted the building away from the wetland area. The stormwater detention pond was shifted to upland area cutting out retail shop space and parking. To maintain required parking the out parcel area was reduced as well. The final layout plan provides Kroger at 113,531SF, 7,800SF of shops, 9 pump fuel centers and 1.9AC of out parcel land. 591 parking stalls are provided where 552 stalls are code required. The plan changes and reduction of 0.3AC of out parcel land and 12,800SF of potential retail space and support parking out the wetland impacts to 1.137AC. This is approximately a 30% reduction in wetland impact for the project overall.

The following are site considerations that were evaluated to minimize and avoid impact to the wetland:

- The minimum number of required parking spaces were provided on the site with no additional parking spaces planned.
- As shown on the Site Plan for the site, the site improvements (including the parking building and sidewalks) maximize space efficiency. Sidewalks provided are of minimum width. Parking islands are minimally sized to accommodate the proposed traffic pattern.
- LID concepts were introduced into the site. Curb cuts are implemented on the site to maximize sheet flow. BMP/SWM basins designed "off-line" to avoid wetland area.
- Slopes were maximized and retaining walls provided on the site to reduce the grading footprint while considering slope stability.
- Initial design impacted 1.35 ac with the final design affecting 1.137 acres of wetland
- Separate stormwater outfall is provided to maintain existing wetland areas to remain preserved.