



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
SAVANNAH DISTRICT, CORPS OF ENGINEERS  
100 W. OGLETHORPE AVENUE  
SAVANNAH, GEORGIA 31401-3640

**MARCH 14 2012**

Regulatory Division  
SAS-2010-01004

**JOINT PUBLIC NOTICE**  
**Savannah District/State of Georgia**

The Savannah District has received an application for a Department of the Army Permit, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), as follows:

Application Number: SAS-2010-01004

Applicant: Superintendent Phil Murphy  
Bacon County Board of Education  
201 West 4<sup>th</sup> Street  
Alma, Georgia 31510

Agent: Mr. Laary Cushman  
Cushman Enterprise, LLC  
Post Office Box 1808  
Anderson, South Carolina 29622

Location of Proposed Work: The proposed project site is located off of US Highway 1, southeast of Alma, Bacon County, Georgia (Latitude 31.5223°N, Longitude - 82.4577°W).

Description of Work Subject to the Jurisdiction of the US Army Corps of Engineers: The applicant proposes to develop an 86.185-acre site for a new middle/high school in Bacon County. According to the applicant, the proposed school would impact 5.6 acres of jurisdictional wetlands associated with the construction of facilities, access road, parking areas, and recreational fields. A total of 23.8 acres of wetlands would be avoided. As mitigation for jurisdictional impacts, the applicant proposes to purchase 34.16 wetland mitigation credits from an approved wetland mitigation bank.

The applicant states that the current student growth and projected Census growth for 2020 exceeds the current capacity of the existing High School. While the current facilities partly meet the state and national educational requirement, the new facility would provide adequate classroom space and an updated facility to meet the current and projected needs of the school district. For additional information, see the attached project description supplied by the applicant. The opinions, views and or conclusions that are expressed by the applicant in this project narrative do not necessarily reflect those of the US Army Corps of Engineers (USACE).

## BACKGROUND

This Joint Public Notice announces a request for authorizations from both the USACE and the State of Georgia. The applicant's proposed work may also require local governmental approval.

### STATE OF GEORGIA

Water Quality Certification: The Georgia Department of Natural Resources, Environmental Protection Division, intends to certify this project at the end of 30 days in accordance with the provisions of Section 401 of the Clean Water Act, which is required for a Federal Permit to conduct activity in, on, or adjacent to the waters of the State of Georgia. Copies of the application and supporting documents relative to a specific application will be available for review and copying at the office of the Georgia Department of Natural Resources, Environmental Protection Division, Water Protection Branch, 4220 International Parkway, Suite 101, Atlanta, Georgia 30354, during regular office hours. A copier machine is available for public use at a charge of 25 cents per page. Any person who desires to comment, object, or request a public hearing relative to State Water Quality Certification must do so within 30 days of the State's receipt of application in writing and state the reasons or basis of objections or request for a hearing. The application can be reviewed in the Savannah District US Army Corps of Engineers, Regulatory Division, 100 W. Oglethorpe Avenue, Savannah, Georgia 31401-3640.

### US ARMY CORPS OF ENGINEERS

The Savannah District must consider the purpose and the impacts of the applicant's proposed work, prior to a decision on issuance of a Department of the Army Permit.

Cultural Resources Assessment: Based on a Phase 1 Cultural Resources Survey report submitted by the applicant and our review of the latest published version of the National Register of Historic Places, no registered properties or properties listed as eligible for inclusion are located at the site or in the area affected by the proposed work. Presently unknown archaeological, scientific, prehistorical or historical data may be located at the site and could be affected by the proposed work.

Endangered Species: The Red-cockaded woodpecker (*Picoides borealis*), Wood stork (*Mycteria Americana*), Eastern indigo snake (*Drymarchon couperi*), Gopher tortoise (*Gopherus polyphemus*), and Parrot pitcher-plant (*Sarracenia psittacina*) are listed by the Department of the Interior, Fish and Wildlife Service and the State as Threatened or Endangered in Bacon County. Pursuant to Section 7(c) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) and based on existing site conditions and habitats, the USACE has determined that the proposed project would have no effect on any threatened or endangered species, or their habitats.

Public Interest Review: The decision whether to issue a permit will be based on an evaluation of the probable impact 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, 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.

Consideration of Public Comments: The USACE is soliciting comments from the public; federal, state, and local agencies and officials; Native American 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 US Army 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 and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Application of Section 404(b)(1) Guidelines: The proposed activity involves the discharge of dredged or fill material into the waters of the United States. The Savannah District's evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under the authority of Section 404(b) of the Clean Water Act.

Public Hearing: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application for a Department of the Army permit. Requests for public hearings shall state, with particularity, the reasons for requesting a public hearing. The decision whether to hold a public hearing is at the discretion of the District Engineer, or his designated appointee, based on the need for additional substantial information necessary in evaluating the proposed project.

Comment Period: Anyone wishing to comment on this application for a Department of the Army permit should submit comments in writing to the Commander, US Army Corps of Engineers, Savannah District, Attention: Regulatory Division, 100 W. Oglethorpe Avenue, Savannah, Georgia 31401-3640, no later than 30 days from the date of this notice. Please refer to the applicant's name and the application number in your comments.

If you have any further questions concerning this matter, please contact Ms. Sherelle Reinhardt, Regulatory Specialist, Permits Section, Coastal Branch at 912-652-5964.

8 Encls

1. Applicants Supplemental Documentation ( Project Narrative, 13 pages)
2. Listed Species in Bacon County (1 page)
3. Alternative Site Locations (Figure 6, 1 page)
4. Wetland Boundary Map of Alternative "Site B" (Sheet 4, 1 page)
5. Site Location Map (Figure 1, 1 page)
6. National Wetland Inventory Location Map with Delineated Wetlands (Figure 4, 1 page)
7. Preliminary Site Plans: Option 1 and Option 2 (Sheet C1.0, 2 pages)
8. Site Plan with impacts (Figure 5, 1 page)

## Bacon County Board of Education, Bacon County, Project Narrative

### **1.0 Introduction**

On behalf of Bacon County School Board, Cushman Enterprises, LLC (CE) is requesting concurrence with the enclosed Joint Application for 404 & 401 Permit on the approximate 86 acre site for a total of 5.6 acre of fill for a roadway, bus loop, and parking area, to access a proposed Middle/High School. A total of 23.8 acres of on-site wetlands are to remain undisturbed and free from impacts, with buffers, according to GA Water Quality Criteria. Phil Murphy, Superintendent of Bacon County School Board, has authorized CE as agent to act in its behalf in the processing of this application and to furnish supplemental information in support of this application. Please find the names, addresses, and phone numbers of both the applicant and the agent on the enclosed USACE Form 19.

Bacon County School Board is proposing to fill 5.6-acres of wetland area for the purpose of connecting an offsite roadway to the exiting "Townsend Lane" to the northeast. The roadway traverses southwest and terminates at "U.S. Middle/Highway #1". The purpose is to provide safe and adequate traffic flow to and from the site, while providing separate and exclusive parking/access to the site for student buses, students, faculty/staff, and visitors (Figures 1-5 & Sheet 1).

The site is predominantly mixed hardwood-pine forest habitat that has been recently timber-harvested. Five (5) jurisdictional areas are located on-site and were delineated and verified under SAS-2010-01004 (please see attached Figures) which are composed of reasonably permanent wetland areas and connecting drainages. Enclosed are a location map/infrared aerial, a U.S. Geological Survey 7.5-minute topographic quadrangle map, and a USDA County Soils Map that depicts the subject property location (Figures 1-3), with impact drawings showing jurisdictional areas and fill areas/details.

The applicant proposes to purchase compensatory mitigation from an off-site mitigation bank to offset the impacts. No future impacts or maintenance activities will take place in remaining adjacent jurisdictional areas.

### **Project Description**

The project entails developing the proposed roadway areas, with necessary jurisdictional impacts for the proposed bus and student vehicle access to an proposed Middle/High School Site. The roadway will be constructed to meet the safe and adequate access needs of the county school campus for Middle/High School students, with a public access road. The public access road will be installed with jurisdictional fill impacts to 5.6 acres of wetlands, composed of Impact A, 3.08-acre impact and Impact B, 2.52-acre impact. Impacts will require a total of 34.16 Credits to be purchased from a USACE approved mitigation bank.

The vegetation located in and around the jurisdictional wetland areas includes red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), water oak (*Quercus nigra*), scirpus cyperinus (Cottongrass bulrush), short-bristle horned rush (*Rhynchospora corniculata*), black gum (*Nyssa*

sylvatica), laurel oak (*Quercus laurifolia*), common greenbrier (*Smilax rotundifolia*), netted chainfern (*Woodwardia areolata*), loblolly pine (*Pinus taeda*), honeysuckle (*Lonicera japonica*), sweetbay (*Magnolia virginiana*), yellow jessamine (*Gelsemium sempervirens*), persimmon (*Diospyros virginiana*), and Chinese privet (*Ligustrum sinense*).

The vegetation located in the upland areas include chinese privet (*Ligustrum sinense*), broom sedge (*Andropogon virginicus*), hickory (*Carya Spp.*), winged elm (*Ulmus alata*), common greenbrier (*Smilax rotundifolia*), honeysuckle (*Lonicera japonica*), white oak (*Quercus alba*), post oak (*Quercus stellata*), live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), eastern red cedar (*Juniperus virginiana*), loblolly pine (*Pinus taeda*), and short leaf pine (*Pinus echinata*).

USDA-NRCS Soil Series located on site are of the Albany, Leefield, Pelham, Rigdon and Sapelo series. Upland soils were mostly dry and friable to approximately 14 inches in depth with subangular blocky and semi friable structures from 14-18 inches. Field observations of soils at various sampling sites located on the subject property consisted primarily of sand, sandy loam, and sandy clay loam with chromas of 10YR 3/2, 2/2, and 2.5Y 6/2 in the uplands. Chromas of 10YR 2/1, 10YR 3/1, N 2.5/, 2.5YR 2.5/1, 5/10Y Gley, and 10YR 3/1 with mottles are found along the jurisdictional areas from 0-18 inches (Munsell Soil Color Charts). All soil samples were taken from the soil surface to approximately eighteen (18) inches in depth or shallower.

Review of the current design and field visits to the subject property indicate that the proposed project will impact a total of 5.6-acres of fill to jurisdictional areas. All impacts will be within the project boundaries and are necessary for the completion of this project. Wetland impacts within the proposed project are to a mixed hardwood-pine forests.

BMP's will be utilized during the development of the subject property to minimize the potential of erosion into the remaining jurisdictional areas and wetlands. An erosion control plan in accordance with Georgia Sedimentation and Erosion Control Manual will be submitted to the Bacon County Engineering Department and will be implemented. A water quality control plan will also be implemented, in accordance with GA EPD guidelines.

## 2.0 SUPPLEMENTAL INFORMATION:

**Distances** - No federal projects are located on or near the proposed project.

**State of Georgia Revocable License** - Due to this project not being located in a Coastal Georgia County, No Georgia State Revocable License is necessary. However, the applicant is providing a copy of this entire permit application to the Georgia Department of Natural Resources - Coastal Resources Division (Georgia CRD) to determine any necessary requirements.

**Water Quality Management Plan Statement** - All necessary water quality management plans will be submitted to Bacon County and approved prior to starting construction on the proposed project. The applicant also provided a copy of this entire permit application to the Georgia EPD



and will obtain a Section 401 Water Quality Certification prior to starting construction on the proposed project.

**Floodplain Management Statement** – The proposed project will not place any fill material or reduce the footprint of the floodplain; therefore, there will not be any reduction in flood storage volume in the project area. The applicant agrees to coordinate with the Federal Emergency Management Agency and comply with all approved state or local floodplain management requirements.

**Georgia Stream Buffer Variance** – Due to a lack of stream impacts, no stream buffer variance will be required from Georgia EPD.

**Federally Protected Species** – Cushman Enterprises, LLC, conducted a threatened and endangered species pedestrian survey within the project area to determine the potential occurrence of animal and plants species (or their preferred habitats) currently listed as threatened or endangered by state and federal regulations [Federal Endangered Species Act of 1973 (16 USC 1531-1543)]. Based on existing site conditions and habitats observed during the field survey, it is not anticipated that the project site supports any individual or population of threatened or endangered species listed in Bacon County, Georgia.

PLANTS

Yellow Flytrap (*Sarracenia flava*)

BIRDS

Wood stork (*Mycteria americana*)

REPTILES

Eastern Indigo Snake (*Drymarchon couperi*)

INVERTEBRATE

None Listed

**Cultural, archaeological, and or historic resources** - A comprehensive Phase I cultural resources survey can be completed by the request of USACE. A preliminary field reconnaissance was performed and no structures or artifacts over 50 years old were noted within the project boundaries. The site has historically been used for agricultural and silvicultural activities.

The National Register of Historic Places listed four properties included in its register for architectural significance. These are the Alma Depot, the Bacon County Courthouse, Bacon County School, and the Rabinowitz Building. None of these properties are located on-site or within the immediate vicinity of the project.

No sites listed or eligible for listing on the National Register of Historic Places appear to be present within the subject site.

**Mitigation Plan** - The implementation of the site plan will result in the filling of 5.6-acres of forested wetland. The Savannah District, USACE, March 2004 Standard Operating Procedure (SOP) was used to calculate the required wetland compensatory mitigation credits to offset the proposed project impacts. To offset the 5.6-acres of wetland impacts, the applicant proposes to purchase 34.16 wetland mitigation credits from a USACE-approved compensatory mitigation bank that services the project area and provides appropriate functional replacement credits. Please refer to the attached SOP worksheet for credit requirement calculations. Please also see the below credit purchase analysis identifying the most appropriate mitigation bank to offset the proposed project impacts.

**CREDIT PURCHASE ANALYSIS**

Table 1 and table 2 depict data obtained from the USACE and RIBITS (Regional Internet Bank Information Tracking System) and selection of the proper banking instrument to meet the goals set forth by the section 404 of the Clean Water Act (CWA) and/or with the Final Mitigation Rule, dated April 10, 2008. CE also contacted the chosen instrument, Hog Creek Mitigation Bank, to confirm availability of credits and eligibility to release such credits for this project.

In accordance with the Savannah District's Mitigation SOP, the project requires 34.16 wetland credits. This proposed project is located in the Ogeechee River Basin PSA and in the 03070201 8-digit HUC known as the Altamaha-St. Marys Watershed. There are 4 banks located in the PSA. Additional information and analyses are provided in the following matrix in accordance with the "Savannah District, US Army Corps of Engineers, Regulatory Guidelines to Evaluate Proposed Mitigation Bank Credit Purchases in the State of Georgia" dated November 18, 2009, for the applicant's proposed mitigation bank selection:

**Table 1. Savannah District Mitigation Banks: Available Credits by 8-Digit HUCs as of 16-January 2012**

HUC	Credit Type	Bank Name	District Name	Available Credits
3070201	Wetland	Hog Creek	Savannah	68
		Musket Bay	Savannah	493.432
		Marshlands, Inc	Savannah	10.04
		Satilla River	Savannah	12.114
		<b>Total Wetland</b>		<b>583.586</b>

**Banking Instrument Contacts:**

Hog Creek  
 Contact Information  
 Mitigation Management, LLC (Sales POC)  
 Matt Peevy  
 5665 New Northside Drive, Suite 260  
 Atlanta, GA 30328  
 Email: matt@mitigationcredits.com  
 Phone: (404) 376-1698  
 Available Credits 68

Musket Bay  
 Greg Smith  
 1305 Lakes Parkway, Suite 129  
 Lawrenceville, GA 30043  
 Email: gsmith@corblu.com  
 Phone: (770) 682-9731  
 Available Credits 493.432

Marshlands, Inc., Camden County  
 Walter Stephens  
 357 Brighton Road  
 Tifton, GA 31794  
 Email: zstephens@friendlycity.net  
 Phone: (229) 382-1412  
 Available Credits 10.04

Satilla River  
 Mark LaRue  
 1916 Heritage Place, SW  
 Conyers, GA 30094  
 Phone: (770) 761-9406  
 Available Credits 12.114

**Table 2. Resource analysis of Available Banks within Primary Service Area**

<b>RESOURCE ANALYSIS</b>			
<i>IMPACT SITE DATA</i>			
Resource Category	Service Area; HUC	Credits Needed	
Freshwater Wetland	PSA; 3070201	34.16	
		Sufficient Credits Available?	Recommended for Use?
<i>MITIGATION BANK DATA</i>			
Hog Creek	PSA: 3070201	Yes	Yes, Pending USACE Approval. 19.6 miles from site.
Musket Bay	PSA: 3070201	Yes	No. Too Far away from Site. 24.7 miles from site.
Marshlands, Inc	PSA: 3070201	No	No. Not enough Credits and Too Far away from Site. 28.5 miles from site.
Satilla River	PSA: 3070201	No	No. Not enough Credits and Too Far away from Site. 73.1 miles from site.

All efforts have been made to evaluate the most appropriate banking instrument available for this project according to requirements set forth by the USACE. In the event that credits are not entirely available from one bank, adjacent banking instruments will be reviewed for secondary purchases to meet the needs of the project.

This option falls within EPA's 404 guidelines of a wetland's role in a complete and interrelated area with benefit to the jurisdictional resource. With the current condition of the on-site resources, the impacts and designs proposed are minimal when compared to the proposed protection and enhancement to water quality of surface waters they will serve.

Based on this analysis, the applicant proposes to purchase the mitigation credits from the Hog Creek Mitigation Bank. The Banker Point of Contact indicated on January 19, 2012, that sufficient credits were available to cover the proposed project needs.

**Proximity to 303(d) listed streams** - The proposed project is located near the St. Charles River. After a search of the US EPA web-site, the applicant determined that no waters within this watershed are 303(d) listed streams. Also, the applicant has determined that the project as proposed would not likely add to water quality problems in any listed rivers and streams due to

the proposed stormwater management plan, which will also be reviewed and approved by Bacon County prior to any construction activities.

**Proximity to trout streams** - After a review of the Georgia DNR web-site, the applicant has determined that no trout streams are located within Bacon County, Georgia. Therefore, no impacts are expected to trout streams.

**US EPA Priority Watershed** - After a review of the US EPA web-site, the applicant has determined that the Altamaha-St. Marys Watershed is not located within a US EPA priority watershed.

**Project Phasing** - The applicant does not anticipate any phasing associated with the school development.

### **3.0 PUBLIC INTEREST REVIEW FACTORS:**

1. Economics/Social: The proposed Middle/High School development would have a major beneficial effect on economics/social factors by decreasing classroom size within the region and providing an updated school building to meet the needs of the local residents. Therefore, we have determined that the proposed work would have a minor beneficial effect on economics/social factors.

2. Educational/Scientific: The proposed Middle/High School development would provide a great opportunity for scientific and/or educational benefits to the public. The school will provide updated laboratories and facilities for science classes as well as updated classrooms for the study of social sciences and the arts. Therefore, we have determined that the proposed work would have major effect on education or science.

3. Aesthetics: The proposed Middle/High School development would have a temporary short-term effect in the project vicinity during construction due to the increase in construction related traffic and the use of heavy equipment on the proposed project site. The project would be located on a property that is currently maintained timberland with some mixed hardwood forest. The property is located along US HWY 1 south, in Alma, Georgia, and is surrounded by farmland and mixed residential to the south, east, and west, and to the north. Therefore, the proposed project is consistent with overall growth and land use patterns in the area, and we have determined the proposed project would have a negligible effect on the surrounding aesthetics.

4. Food/Fiber Production: The proposed project area is located on the west of US HWY 1. Bacon County, Georgia.

Historically, the project site was agriculturally managed, or fallow. Therefore, the property has not contributed to food/fiber production. Residential development surround the project site. Thus, land use trends suggest there would be little opportunity for the lands within this area to produce food and/or fiber products, and the project would do little to change this result. Therefore, we have determined that the proposed project would have a negligible effect on food/fiber production.

5. Historical/Archaeological/Architectural: The applicant is prepared to have a consultant perform an intensive archaeological and historical assessment of the site. However, due to the historic agricultural use of the property, the lack of visual surface artifacts, the lack of structures over 50 years of age, and the lack of any NRHP listings located on the project site or immediate vicinity, the applicant has deemed the expense of such assessment exorbitant and unnecessary. Therefore, we have determined that this project would have no effect on any historical, archaeological, or architectural concerns.

6. Recreation: The proposed project would focus on a Middle/High School development that would provide educational instruction to the citizens of Bacon County, Georgia, and therefore, no major recreational opportunities are proposed for this project. The school will engage in athletic sports activities which will provide moderate recreational activities to those spectators of the sporting events. There are no plans for any public recreational facilities, amenities or parks, and no recreational activities are anticipated at the project site. Therefore, we have determined that the proposed project would have a moderate effect on the on recreational activities.

7. Land Use: The project would be located on a property that is currently maintained open field with some mixed hardwood forest. The proposed Middle/High School development would represent a considerable change in land use with respect to the actual site. However, the site will have wetland and wooded areas reserved and buffered as green space. The project would be similar in style and design as other school properties in the area. Therefore, the proposed project is consistent with overall growth and land use patterns in the area. Therefore, we have determined the proposed project would have a negligible effect on land use concerns.

8. Mineral Resources: It is unknown if mineral resources are present on the site; however, construction of this proposed project would not require any significant removal of mineral resources from the project site, and mining activities are not included as activities associated with construction of the proposed project. Therefore, we have determined that construction of this project would have a negligible effect on mineral resource concerns.

9. Soil Conservation: The applicant will insure that erosion control measures will be installed to reduce/eliminate the transport of sediments/suspended solids off the project site. Appropriate erosion and silt control measures will also be maintained in effective operating condition while construction activities occur on-site. Once construction activities are completed, further soil loss from the project area would not be likely. In addition, any permit issued by this office would include a special condition that requires the permittee to, "use appropriate erosion and siltation controls and maintain them in effective operating condition during construction. All exposed soil and other fills shall be permanently stabilized at the earliest practicable date." Therefore, we have determined that the proposed project would have a negligible effect on soil conservation concerns.

10. Water Supply Conservation: Given that the applicant is proposing to construct a Middle/High School development, the project should not require water withdrawals or any permits from Georgia Environmental Protection Division (EPD), Water Resources Management Branch. After considering the previously described information, we have determined that this project would have a negligible effect on water supply conservation.

11. **Water Quality:** The intent of this applicant's stormwater management plan is to allow for a gradual, controlled release of stormwater into on-site stormwater management ponds.

The stormwater ponds would capture post-development stormwater and maintain preconstruction discharge rates as required by Bacon County. The pond would also aid in the post-development removal of pollutants, including, but not limited to, total suspended solids, total phosphorous, and total nitrogen. During construction, silt fence, hay bales, sediment ponds, and other appropriate best management practices would be used to prevent sediment from leaving the site or entering the surrounding wetland and/or stream areas.

As a result of the proposed action, minor adverse effects to water quality are expected; however, use of Best Management Practices during construction and the compensatory mitigation proposed for impacts to jurisdictional waters will offset these minor impacts. This would be the result of filling wetlands and streams, erosion from upland construction activities, and stormwater runoff from construction activities and the placement of impervious surfaces, such as concrete and asphalt. Furthermore, the applicant will be required to obtain a Water Quality Certification pursuant to Section 401 of the Clean Water Act from the Georgia EPD prior to final issuance of a permit. Therefore, we have determined that the proposed project would have a minor, adverse effect on water quality concerns.

12. **Air Quality:** The proposed project would have minor adverse impacts on the local air quality during and post-construction. There will be a temporary minor adverse impact on air quality during construction activity due to the heavy equipment fuels and stirring of dust, dirt and debris, in the project vicinity. Therefore, we have determined that the proposed project would have a negligible effect on air quality concerns.

13. **Noise Levels:** The proposed project would have a minor adverse impact on the noise levels during and post-construction. The addition of the heavy equipment during construction will temporarily increase noise levels in the immediate area. However, all construction activities and timeframes will adhere to all local noise ordinance requirements.

The Middle/High School development would have a permanent minor adverse impact on noise levels in the immediate area due to continued sounds from educational transit, increased traffic, and patrons throughout the project area. There will not be a significant increase in noise levels due to the school operating within local noise ordinances. Therefore, we have determined that the proposed project would have a negligible effect on noise level concerns.

14. **Public Safety:** This area of Alma, Georgia is a slightly urbanized area, and this proposed project would provide educational services for the citizens of the area. The only specific activity that has been identified to present particular risk to public safety is vehicular safety; however, with the specifications and design requirements mandated by GDOT, vehicular safety is no longer a major concern. Bacon County would have the responsibility for providing fire protection and emergency services for the proposed development. Therefore, we have determined that the overall effect of this project on public safety would be negligible.

15. **Energy Needs:** Energy in the form of electricity, petroleum fuels, natural gas, etc.

would be used during the construction and operation of the proposed Middle/High School development.

These energy sources are readily available and are expected to be available in the future. The maintenance and use of this commercial development would require energy needs/resources for normal use and operation. However, the amount of energy necessary would be insignificant with respect to the current energy needs required by other schools already in the area. Therefore, we have determined that the proposed project would have a negligible effect on energy need concerns.

16. National Security: The proposed Middle/High School development is located in a slightly urbanized area of Alma, in Bacon County, Georgia. No facilities of National Security Concern are located within the area. Therefore, we have determined that the proposed project would have no effect on national security concerns.

17. Navigation: There are no navigable waterways within the project area. The 5.6-acres of wetland impact would not have any effect on navigation. Therefore, we have determined that this project would have no effect on any navigational concerns.

18. Shoreline Erosion/Accretion: The proposed project does not include any modifications or impacts to the existing shoreline. Therefore, we have determined that this proposed project would have no effect on any shoreline erosion/accretion concerns.

19 and 20. Flood Hazards and Flood Plain: The construction of a proposed Middle/High School development would contribute a negligible effect with respect to promoting a flood hazard or incurring minor damage in the event of minor flooding. However, the project would not encroach a federally designated Special Flood Hazard Area (SFHA). By memorandum dated February 10, 2011, Georgia Flood Plain Management Section (GAFPM) advised that, "This notice is considered to be consistent with those state or regional goals, policies, plans, fiscal resources, criteria for developments or regional impact, environmental impacts, federal executive orders, acts and/or rules and regulations with which this organization is concerned." In addition, the applicant would be responsible for insuring that the project complies with all rules, regulations and/or requirement of the Federal Emergency Management Agency (FEMA) with regard to flood plains and flood ways. A special condition requiring compliance with applicable FEMA regulations would be included in any draft permit, which may be issued for this project. With these conditions in place, we have determined that the project is expected to have a negligible impact on flood hazard/flood plain concerns.

21. Wetlands: The project site is approximately 86.19-acres with approximately 34% (29.39-acres) wetland coverage. It should be noted that a vast majority of properties located within this area of Georgia typically contain around the same amount of wetland coverage, and the applicant would be unlikely to find other sites with less wetland coverage. The wetlands on the project site are forested wetland in an urbanized area with a significant amount of surrounding impervious surface.

To mitigate for the project impacts, the applicant would purchase 34.16 wetland mitigation credits from Hog Creek Mitigation Bank, which is a USACE-approved mitigation bank that

services the project area. From a functional and quantitative perspective, the magnitude of wetland impact associated with the proposed project is relatively minor, and the applicant's proposed mitigation plan is consistent with policy concerning the use of USACE-approved mitigation banks to offset wetland impacts.

Given the information provided, the USACE is satisfied that no other practicable alternatives exist for the proposed project, and the applicant has satisfied all requirements of the 404(b)(1) guidelines. Even with the applicant's proposed mitigation plan, however, the project would result in a minor adverse impact to wetland functions due to indirect impacts, such as increased stormwater flow to wetlands and temporary impacts during construction. Therefore, we have determined that the project would result in a minor adverse impact to wetlands.

22. Refuges: The proposed project is not located in close proximity to any refuge. Therefore, due to the distance from proposed project to the nearest wildlife refuge, we have determined that no effect is expected to any refuges.

23. Fish: The wetlands proposed for fill (5.6-acres) do not directly support fish species of concern. Indirectly, however, these wetlands may provide some beneficial function such as retention of stormwater and also prevent subsequent sheet flow offsite. Thus, it is not likely that the non-point source runoff associated with this project would contribute significantly to the existing loading of downstream stormwater. Overall, we have determined that the proposed project would have a negligible effect associated with any fish species concerns.

24. Wildlife: Since the project site is primarily maintained silviculture and agriculture in an urbanized area, it is not likely that a variety of wildlife resides on the tract, nor in the immediate project vicinity. Development of the project site may reduce available habitat for wildlife species and other food chain organisms, but it is important to consider that the project site was previously maintained and that the remaining wetland areas will compose considerable wildlife habitat refuge. Any wildlife located on the property would be expected to seek habitat in these areas. Overall, this project would be expected to have a negligible effect on wildlife due to displacement and loss of habitat. Therefore, we have determined that the project would have a negligible effect on wildlife concerns.

25. Food Chain Organisms: The loss of the 5.6-acres of wetland would result in an associated loss in food chain organisms produced by this ecosystem. The nature of the impacts and the wetland and stream mitigation areas should partially, if not completely, offset this negative effect by providing areas for the production of other food chain organisms. In addition, the conditions stated in the water quality section above would minimize potential impacts to these organisms due to water quality and flow regime impacts that would result from the project's construction. The project area contains wetlands and streams that are common throughout this region of Georgia. Thus, the proposed loss of wetlands would not substantially contribute to any impact concerning food chain organisms. Therefore, we have determined that the project would have a negligible effect on any food chain organisms.

26. Shellfish Production: Due to the distance between the project site and major coastal shellfish-producing areas, we have determined that this project would have a negligible effect on shellfish production.

27. Threatened and Endangered Species: A preliminary threatened and endangered species survey was completed on the proposed project site. Plant communities and habitats were observed to determine if they match habitat types of any listed species. That preliminary survey yielded no sightings of listed species or critical habitats to match those species. Therefore, we have determined that the proposed project would have no effect on federally listed threatened or endangered species.

28. General Environmental Concerns: The environmental concerns for this project focus on the potential impacts of the proposed project on wetlands, streams, cultural resources, fish, wildlife, and food chain organisms. Each of these concerns were discussed above. No other adverse environmental impacts are anticipated. The net adverse effect of this project would have a negligible effect on the environmental factors, which were evaluated above.

29. Property Ownership: There would be no effect on property ownership since the applicant owns the property. Adjacent property owners along this project corridor provided no comments or opposition to the project. Therefore, we have determined that the proposed project would have no effect on property ownership.

30. Mineral Needs: Construction of the project would require considerable amounts of construction material such as sand, gravel, concrete, etc. However, mineral resources are readily available and in ample supply. Therefore, we have determined that construction of this project would have a negligible effect on mineral need concerns.

31. Other: There may be other unknown project-related impacts that are not discussed above, and therefore, we would be unable to evaluate the potential for those impacts to occur. Therefore, we recognize there maybe undetermined effects associated with other, unknown concerns.

#### **4.0 Standalone 404(b)(1) analysis:**

A completed draft 404(b)(1) analysis addressing each elements of the document is provided as Attachment B.

#### **5.0 Culverts in streams and/or wetlands:**

No culverts are proposed in wetlands. The 5.6-acres of wetland impact will be clean fill, free of contaminants. See project plans for further clarification.

#### **6.0 Required Drawings:**

Attached are figures 1 through 6, depicting the site location, topography, aerial point of view, known wetlands, proposed impacts, and alternative sites considered during the planning phase. Also located therein are site designs showing engineered impacts of the project.



Attachment "A"  
Threatened and Endangered Species Listed in  
Bacon County, Georgia

### Species By County Report

The following report contains Species that are known to or are believed to occur in this county. Species with range unrefined past the state level are now excluded from this report. If you are looking for the Section 7 range (for Section 7 Consultations), please visit the IPaC application.

**County: Bacon, GA**

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Action Status	Recovery Plan Stage
Birds	Wood stork ( <i>Mycteria americana</i> )	AL, FL, GA, SC	Endangered	North Florida Ecological Services Field Office	Revised Recovery Plan for the U.S. Breeding Population of the Wood Stork	View Implementation Progress	Final Revision 1
Reptiles	Eastern indigo snake ( <i>Drymarchon corais couperi</i> )		Threatened	Mississippi Ecological Services Field Office	Eastern Indigo Snake	View Implementation Progress	Final

Listed Species in Bacon County (updated May 2004)				
Species	Federal Status	State Status	Habitat	Threats
<b>Birds</b>				
<b>Red-cockaded woodpecker</b> <i>Picoides borealis</i>	E	E	Nest in mature pine with low understory vegetation (<1.5m); forage in pine and pine hardwood stands > 30 years of age, preferably > 10" dbh	Reduction of older age pine stands and to encroachment of hardwood midstory in older age pine stands due to fire suppression
<b>Wood stork</b> <i>Mycteria americana</i>	E	E	Primarily feed in fresh and brackish wetlands and nest in cypress or other wooded swamps	Decline due primarily to loss of suitable feeding habitat, particularly in south Florida. Other factors include loss of nesting habitat, prolonged drought/flooding, raccoon predation on nests, and human disturbance of rookeries.
<b>Reptiles</b>				
<b>Eastern indigo snake</b> <i>Drymarchon corais couperi</i>	T	T	During winter, den in xeric sandridge habitat preferred by gopher tortoises; during warm months, forage in creek bottoms, upland forests, and agricultural fields	Habitat loss due to uses such as farming, construction, forestry, and pasture and to overcollecting for the pet trade
<b>Gopher tortoise</b> <i>Gopherus polyphemus</i>	No Federal Status	T	Well-drained, sandy soils in forest and grassy areas; associated with pine overstory, open understory with grass and forb groundcover, and sunny areas for nesting	Habitat loss and conversion to closed canopy forests. Other threats include mortality on highways and the collection of tortoises for pets.
<b>Plants</b>				
<b>Parrot pitcher-plant</b> <i>Sarracenia psittacina</i>	No Federal Status	T	Acid soils of open bogs, wet savannahs, and low areas in pine flatwoods.	



**Legend**

Alternative Sites  USFWS NWI

Chosen Site 

**CUSHMAN ENTERPRISES, LLC**  
 P.O. Box 1808  
 Anderson, SC 29622  
 O: 864.348.3965

**PROJECT NAME:** Bacon County BOE  
**PROJECT LOCATION:** Bacon County, GA  
**CE JOB #:** 11-103-JWB

Alternative Site Locations  
 for Bacon County BOE  
 Bacon County, GA

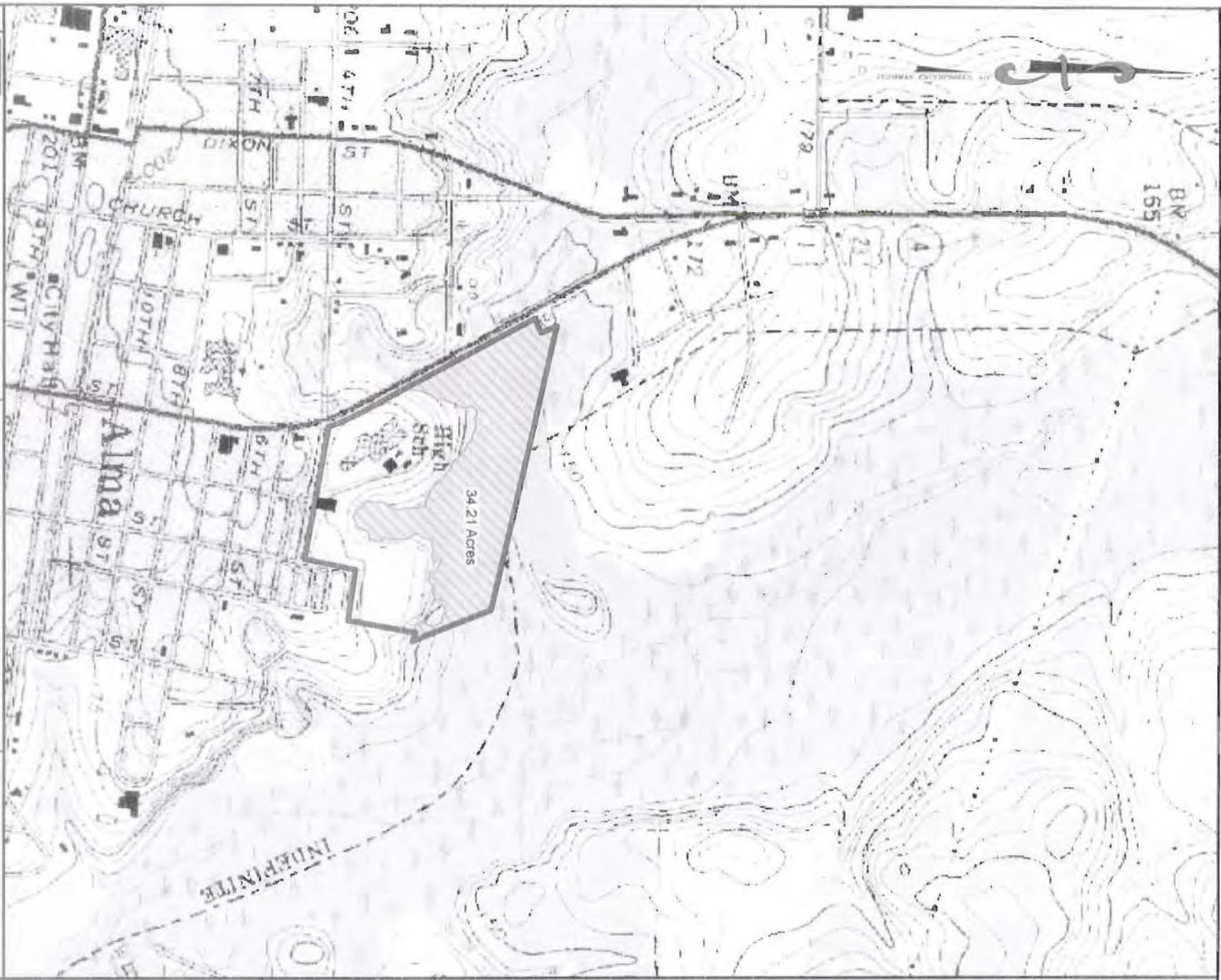
**SCALE:** 1 inch equals 2,000 feet  
**DATE:** 12/30/2011  
**REVISION #:** 0  
**REV DATE:** N/A

**Figure 6**

**CUSHMAN ENTERPRISES, LLC DELINEATION NOTES:**  
 CUSHMAN ENTERPRISES, LLC (CEI) IS ONLY RESPONSIBLE FOR DATA OF JURISDICTIONAL AREAS AND JURISDICTIONAL BOUNDARIES. DEPICTED PROPERTY LINES, MONUMENTS, AND/OR OTHER NATURAL/MAN-MADE FEATURES ARE NOT THE RESPONSIBILITY OF CE. WETLANDS DELINEATED IN GENERAL ACCORDANCE WITH USACE WETLANDS DELINEATION MANUAL Y-87-1 BY CUSHMAN ENTERPRISES, LLC. P.O. Box 1808, Anderson, SC 29622 | O. 864.348.3965

**ALL ENGINEERING DRAWINGS ORIGINATED BY:**  
**James W Buckley & Associates**  
 114 North Green Street  
 Swainsboro, Georgia  
 478-237-6467  
 478-237-3197 (Fax)

All jurisdictional areas and boundaries were delineated using Trimble GeoXT Handheld equipment, incorporating Realtime processing, Code Postprocessing, and Carrier postprocessing. Accuracy (Horizontal Root Mean Squared (HRMS)) of point positions after differential correction ranges between 1cm - 30cm. HRMS accuracy does not exceed 30cm where data has been collected with minimum of 4 satellites, maximum PDOP of 6, minimum SNR of 39 dBHz, minimum elevation of 15 degrees, and reasonable multipath conditions. Ionospheric conditions, multipath signals or obstruction of the sky by buildings or heavy tree canopy may degrade precision by interfering with signal reception. Accuracy varies with proximity to base station by +1 ppm for postprocessing and real-time. ALL OTHER SURVEY POINTS, BOUNDARIES, AND DRAWINGS ORIGINATED BY OTHERS AND NOT THE RESPONSIBILITY OF CUSHMAN ENTERPRISES, LLC. DATA PROVIDED BY CUSHMAN ENTERPRISES, LLC, ARE FOR PLANNING PURPOSES ONLY, AND SHOULD NOT BE CONSTRUED AS AN ACCURATE SURVEY OF PROPERTY BOUNDARIES, NATURAL BOUNDARIES, OR LOCATIONS OF MONUMENTS. DATA PROVIDED FOR PLANNING PURPOSES ONLY UNDER SUPERVISION AND/OR COORDINATION WITH PROFESSIONAL ENGINEERS AND/OR SURVEYORS ON LOCATION OF FIXED MONUMENTS AND PROPERTY BOUNDARIES.



**Legend**

-  Site
-  Wetlands

**CUSHMAN ENTERPRISES, LLC**  
 PO Box 1808,  
 Anderson, SC 29522  
 O: 864.348.3960  
 F: 864.348.3965

**PROJECT NAME:** Bacon County Board of Education  
**PROJECT LOCATION:** Alma, Bacon County, GA  
**CE JOB #:** 10-102-JWB

**Wetland Boundary Map**  
 Alma Quadrangle  
 Bacon County, GA

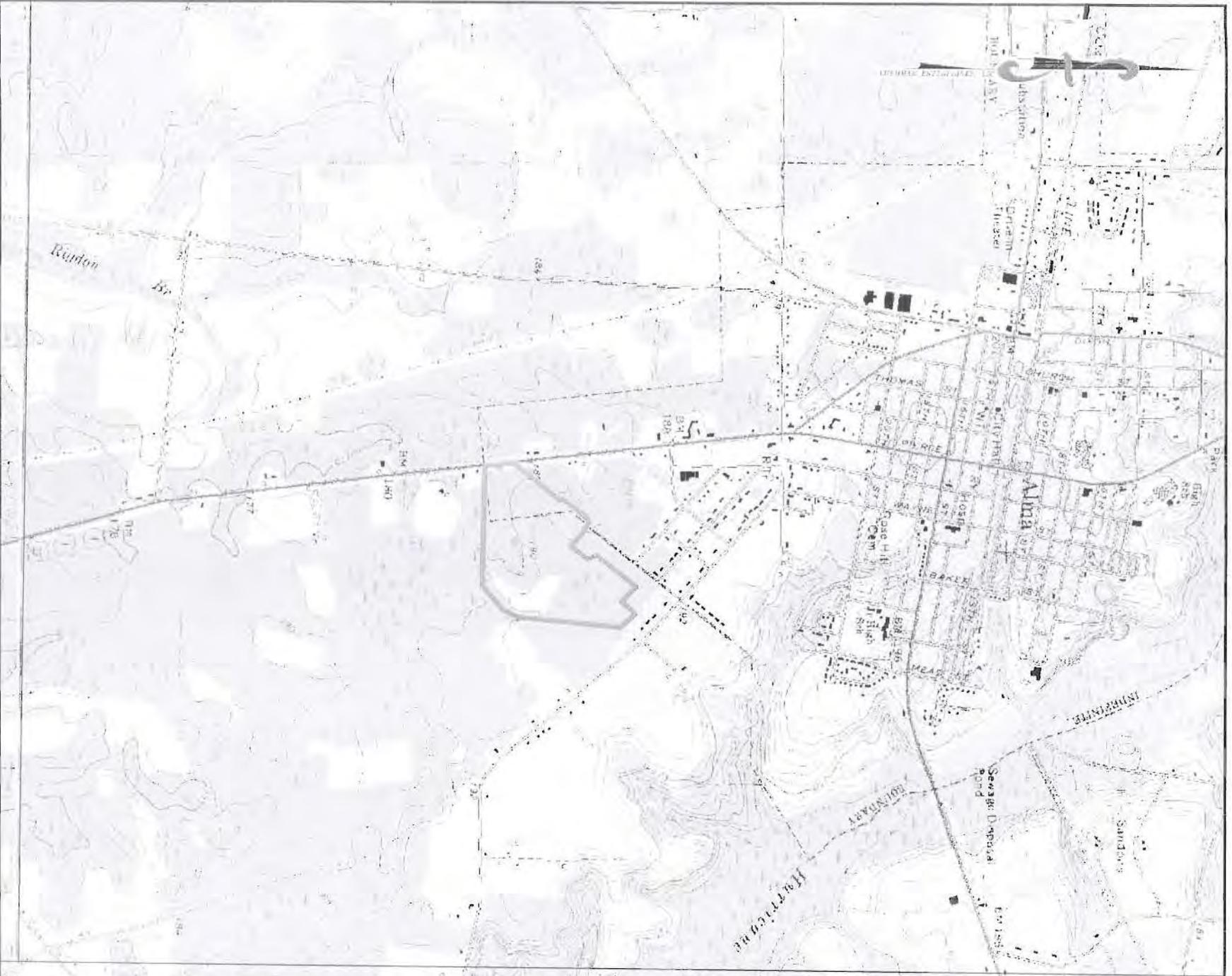
**SCALE:** 1 inch equals 1,000 feet  
**DATE:** 02/15/2010  
**REVISION #:** 0  
**REV. DATE:** N/A

Sheet 4

**CUSHMAN ENTERPRISES, LLC DELINEATION NOTES:**  
 CUSHMAN ENTERPRISES, LLC (CE) IS ONLY RESPONSIBLE FOR DATA OF JURISDICTIONAL AREAS AND JURISDICTIONAL BOUNDARIES. DEPICTED PROPERTY LINES, MONUMENTS, AND/OR OTHER NATURAL/MAN-MADE FEATURES ARE NOT THE RESPONSIBILITY OF CE. WETLANDS DELINEATED IN GENERAL ACCORDANCE WITH USACE WETLANDS DELINEATION MANUAL V-87-1 BY CUSHMAN ENTERPRISES, LLC, PO Box 1808, Anderson, SC 29622 | O: 864.348.3960 | F: 864.348.3965

**ALL ENGINEERING DRAWINGS ORIGINATED BY:**  
 James W Buckley & Associates  
 114 North Green Street  
 Swainsboro, Georgia  
 478-237-6467  
 478-237-3197 (Fax)

All jurisdictional areas and boundaries were delineated using Trimble GpxXT Handheld equipment, incorporating Realtime processing, Code Postprocessing, and Carrier postprocessing. Accuracy (Horizontal Root Mean Squared (HRMS)) of point positions after differential correction ranges between 1cm - 30cm. HRMS accuracy does not exceed 30cm where data has been collected with minimum of 4 satellites, maximum PDOP of 6, minimum SNR of 39 dBHz, minimum elevation of 15 degrees, and reasonable multipath conditions. Ionospheric conditions, multipath signals or obstruction of the sky by buildings or heavy tree canopy may degrade precision by interfering with signal reception. Accuracy varies with proximity to base station by +/- 1 ppm for postprocessing and real-time. ALL OTHER SURVEY POINTS, BOUNDARIES, AND DRAWINGS ORIGINATED BY OTHERS AND NOT THE RESPONSIBILITY OF CUSHMAN ENTERPRISES, LLC. DATA PROVIDED BY CUSHMAN ENTERPRISES, LLC, ARE FOR PLANNING PURPOSES ONLY, AND SHOULD NOT BE CONSTRUED AS AN ACCURATE SURVEY OF PROPERTY BOUNDARIES, NATURAL BOUNDARIES, OR LOCATIONS OF MONUMENTS. DATA PROVIDED FOR PLANNING PURPOSES ONLY UNDER SUPERVISION AND/OR COORDINATION WITH PROFESSIONAL ENGINEERS AND/OR SURVEYORS ON LOCATION OF FIXED MONUMENTS AND PROPERTY BOUNDARIES.



**Legend**

Site

**CUSHMAN ENTERPRISES, LLC**  
 PO Box 1808  
 Anderson, SC 29622  
 O: 864.348.3965

PROJECT NAME: Bacon County Board of Education  
 PROJECT LOCATION: Bacon County, GA  
 CE JOB #: 11-103-JWB

Site Topo Map  
 Bacon County, GA

SCALE: 1 inch equals 2,000 feet  
 DATE: 09/12/2011  
 REVISION #: 0  
 REV. DATE: N/A

Figure 1

**CUSHMAN ENTERPRISES, LLC DELINEATION NOTES:**  
 CUSHMAN ENTERPRISES, LLC (CE) IS ONLY RESPONSIBLE FOR DATA OF JURISDICTIONAL AREAS AND JURISDICTIONAL BOUNDARIES. DEPICTED PROPERTY LINES, MONUMENTS, AND/OR OTHER NATURAL/MAN-MADE FEATURES ARE NOT THE RESPONSIBILITY OF CE. WETLANDS DELINEATED IN GENERAL ACCORDANCE WITH USACE WETLANDS DELINEATION MANUAL Y-87-1 BY CUSHMAN ENTERPRISES, LLC, PO Box 1808, Anderson, SC 29622 | O: 864.348.3965

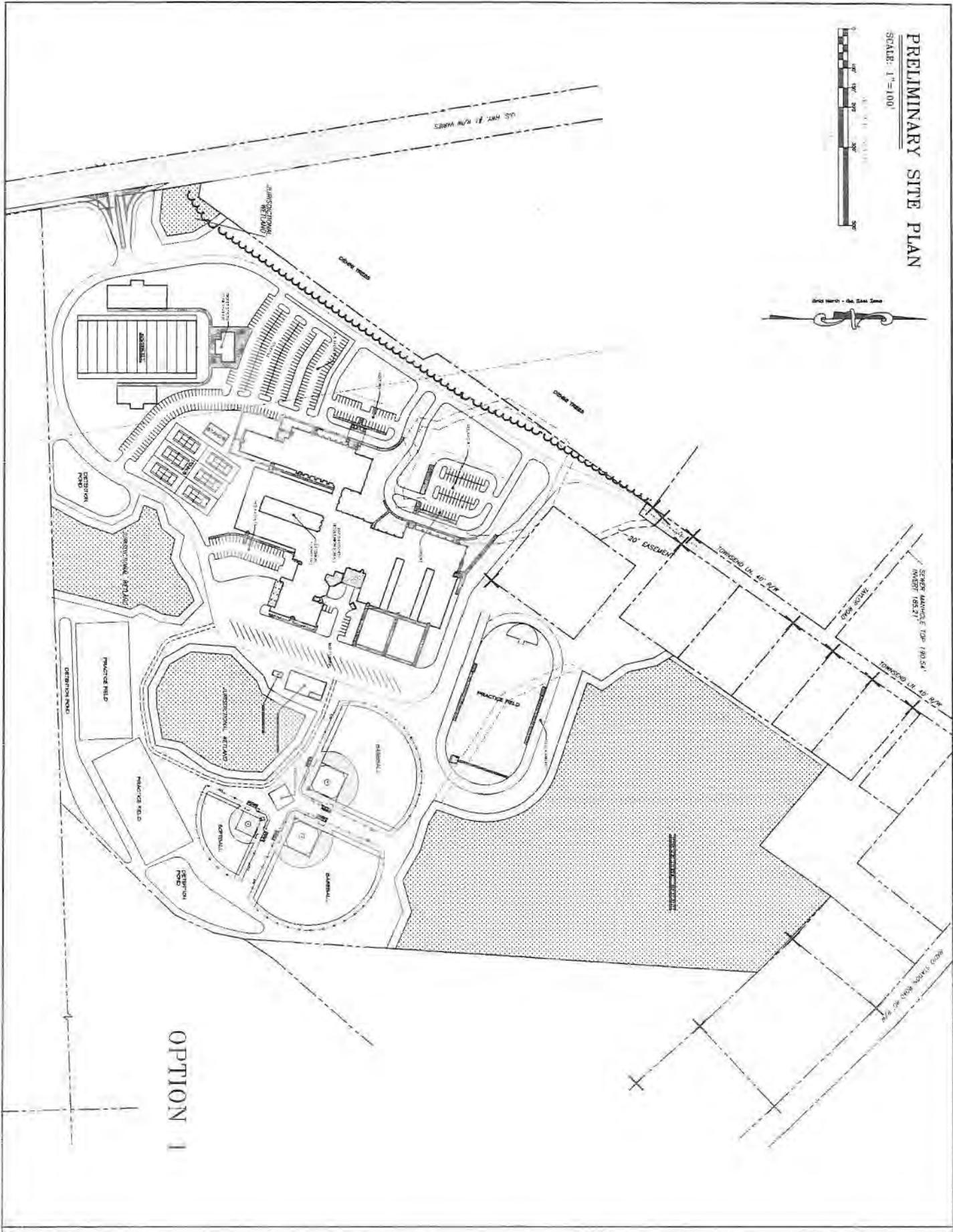
**ALL ENGINEERING DRAWINGS ORIGINATED BY**  
 James W Buckley & Associates  
 114 North Green Street  
 Swainsboro, Georgia  
 478-237-6467  
 478-237-3197 (Fax)

All jurisdictional areas and boundaries were delineated using Trimble GeoXT Handheld equipment, incorporating Realtime processing, Code Postprocessing, and Carrier postprocessing. Accuracy (Horizontal Root Mean Squared (HRMS)) of point positions after differential correction ranges between 1cm - 30cm. HRMS accuracy does not exceed 30cm where data has been collected with minimum of 4 satellites, maximum PDOP of 6, minimum SNR of 39 dBHz, minimum elevation of 15 degrees, and reasonable multipath conditions. Ionospheric conditions, multipath signals or obstruction of the sky by buildings or heavy tree canopy may degrade precision by interfering with signal reception. Accuracy varies with proximity to base station by +1 ppm for postprocessing and real-time. ALL OTHER SURVEY POINTS, BOUNDARIES, AND DRAWINGS ORIGINATED BY OTHERS AND NOT THE RESPONSIBILITY OF CUSHMAN ENTERPRISES, LLC. DATA PROVIDED BY CUSHMAN ENTERPRISES, LLC, ARE FOR PLANNING PURPOSES ONLY, AND SHOULD NOT BE CONSTRUED AS AN ACCURATE SURVEY OF PROPERTY BOUNDARIES, NATURAL BOUNDARIES, OR LOCATIONS OF MONUMENTS. DATA PROVIDED FOR PLANNING PURPOSES ONLY UNDER SUPERVISION AND/OR COORDINATION WITH PROFESSIONAL ENGINEERS AND/OR SURVEYORS ON LOCATION OF FIXED MONUMENTS AND PROPERTY BOUNDARIES.



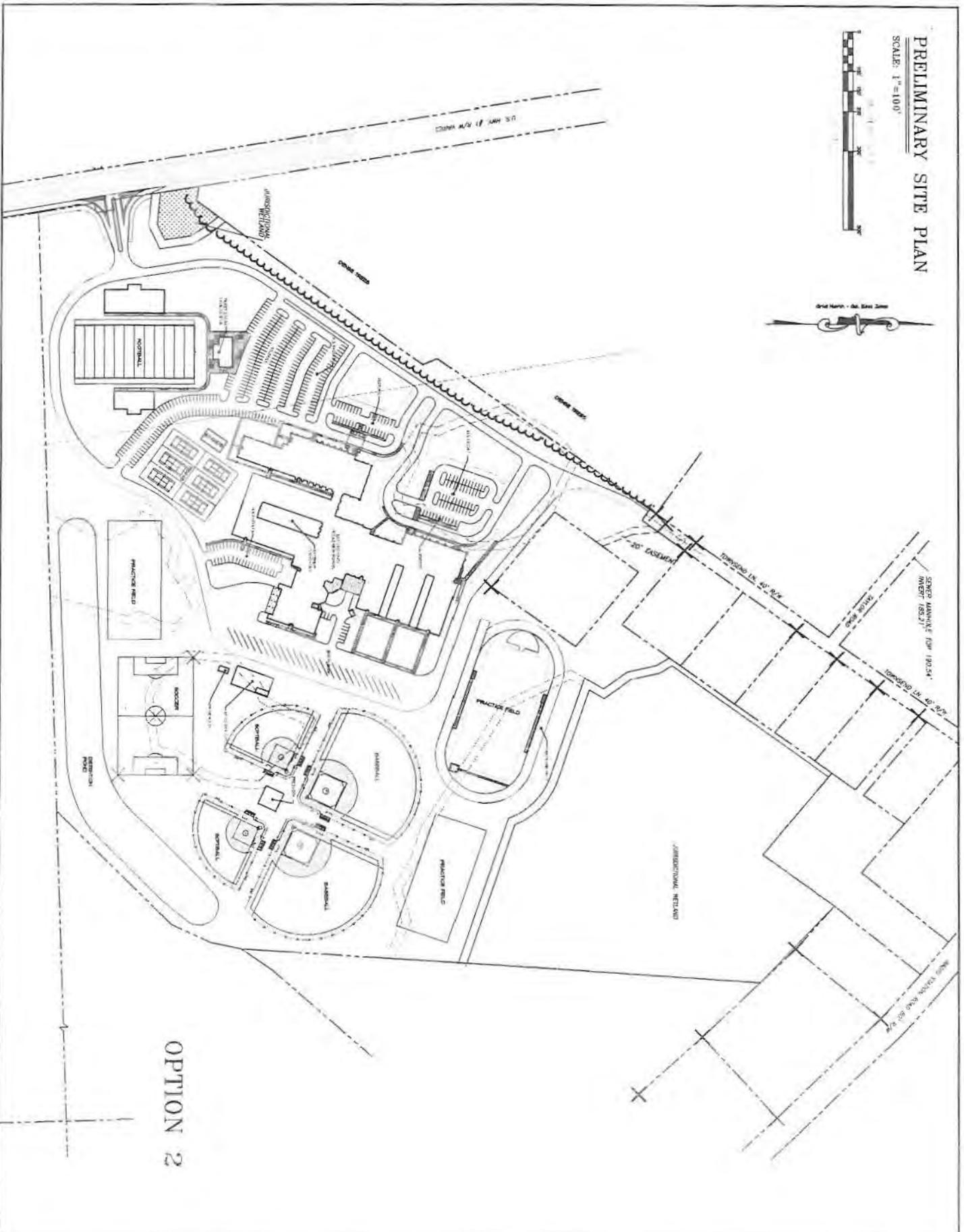
# PRELIMINARY SITE PLAN

SCALE: 1" = 100'

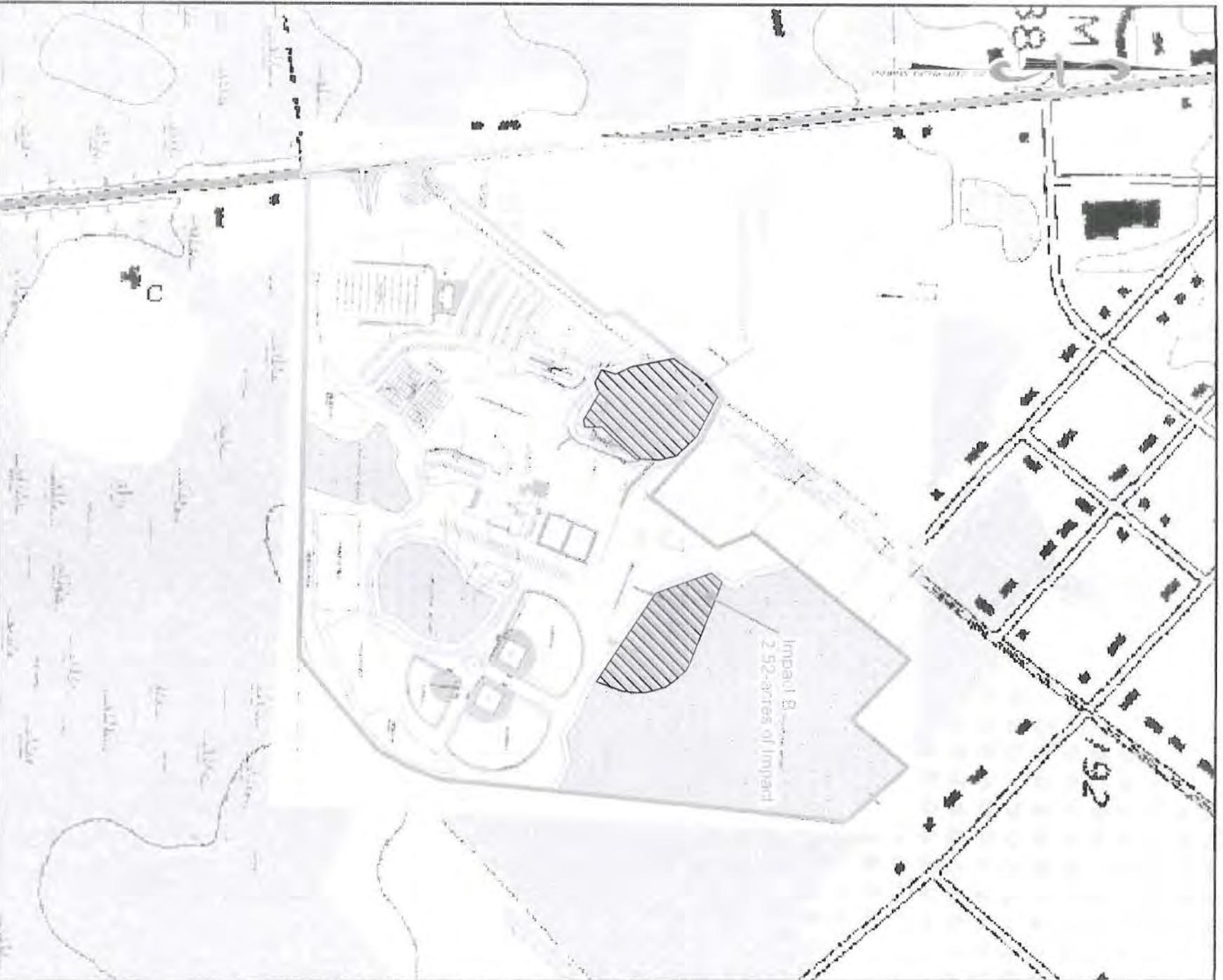


OPTION 1

**PRELIMINARY SITE PLAN**  
SCALE: 1"=100'



**OPTION 2**



**Legend**

Site  
Impacts

PROJECT NAME: Bacon County BOE  
PROJECT LOCATION: Bacon County, GA  
CE JOB #: 11-103-JWB

Site Map, Wetland Impacts, & Proposed Development  
Bacon County, GA

**CUSHMAN ENTERPRISES, LLC**  
P.O. Box 1808,  
Anderson, SC 29622  
O: 864.348.3965

SCALE: 1 inch equals 500 feet  
DATE: 12/30/2011  
REVISION #: 0  
REV. DATE: N/A

Figure 5

**CUSHMAN ENTERPRISES, LLC DELINEATION NOTES:**  
CUSHMAN ENTERPRISES, LLC (CE) IS ONLY RESPONSIBLE FOR DATA OF JURISDICTIONAL AREAS AND JURISDICTIONAL BOUNDARIES, DEPICTED PROPERTY LINES, MONUMENTS, AND/OR OTHER NATURAL/MAN-MADE FEATURES ARE NOT THE RESPONSIBILITY OF CE. WETLANDS DELINEATED IN GENERAL ACCORDANCE WITH USACE WETLANDS DELINEATION MANUAL V-87-1 BY CUSHMAN ENTERPRISES, LLC, P.O. Box 1808, Anderson, SC 29622 | O: 864.348.3965

ALL ENGINEERING DRAWINGS ORIGINATED BY:  
James W Buckley & Associates  
114 North Green Street  
Swainsboro, Georgia  
478-237-6467  
478-237-3197 (Fax)

All jurisdictional areas and boundaries were delineated using Trimble GeoXT Handheld equipment, incorporating Realtime processing, Code Postprocessing, and Carrier postprocessing. Accuracy (Horizontal Root Mean Squared (RMS)) of point positions after differential correction ranges between 1cm - 30cm. HRMS accuracy does not exceed 30cm when data has been collected with minimum of 4 satellites, maximum PDOP of 6, minimum SNR of 39 dBHz, minimum elevation of 15 degrees, and reasonable multipath conditions. Ionospheric conditions, multipath signals or obstruction of the sky by buildings or heavy tree canopy may degrade precision by interfering with signal reception. Accuracy varies with proximity to base station by +1 ppm for postprocessing and real-time. ALL OTHER SURVEY POINTS, BOUNDARIES, AND DRAWINGS ORIGINATED BY OTHERS AND NOT THE RESPONSIBILITY OF CUSHMAN ENTERPRISES, LLC. DATA PROVIDED BY CUSHMAN ENTERPRISES, LLC, ARE FOR PLANNING PURPOSES ONLY AND SHOULD NOT BE CONSTRUED AS AN ACCURATE SURVEY OF PROPERTY BOUNDARIES, NATURAL BOUNDARIES, OR LOCATIONS OF MONUMENTS. DATA PROVIDED FOR PLANNING PURPOSES ONLY UNDER SUPERVISION AND/OR COORDINATION WITH PROFESSIONAL ENGINEERS AND/OR SURVEYORS ON LOCATION OF FIXED MONUMENTS AND PROPERTY BOUNDARIES.