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Mebane, NC 27302
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EarthCentric Engineering, Inc.

ENVIRONMENTAL IMPACT ASSESSMENT

For

**The Extra Garage IV
Chatham County, North Carolina**

February 26, 2016

ECE Project No. 15-022

Prepared For:

Walter Lewis

The Lewis Group Properties

109 Tropez Lane

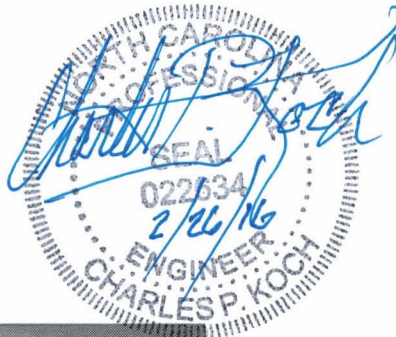
Cary, NC 27511

Prepared by:

EarthCentric Engineering, Inc.

204 W. Clay Street

Mebane, NC 27302



PROPOSED PROJECT DESCRIPTION AND NEED:

1. Describe the overall project in detail, including all proposed phases.

The site is located at 896 Beaver Creek Road- Apex, NC 27502, and is a combination of two parcels PIN #'s 88772 and 17696. These parcels total 19.11 net usable acres, based on a recently completed survey by R. S. Jones and Associates, Inc., located in Mebane, NC. (attachment 12). The two parcels will be combined for total development but only the western parcel (88772) will actually be developed. The parcel is located within the Jordan Lake State Recreational Area and adjoins the Popular Pointe Campground and Boat ramp on the West side.

The parcel is being developed into The Extra Garage IV- a Covered Boat and Motor Home storage facility. The Extra Garage has three other locations surrounding the Jordan Lake area. It has been in business since 2007 offering similar services at the other facilities. These facilities draw customers from the Raleigh, Durham, Cary, and Apex neighborhoods. Additionally, customers from Angier, Holly Springs, Sanford, Pinehurst, and even Fayetteville utilize the TEG facilities.

The Extra Garage IV will be developed in response to the expanding market for first class covered storage. This location is perfect for the area/region of customers that come to the Jordan Lake State Recreational areas. The proximity of The Extra Garage IV's location next to the State Recreational areas will provide the closest covered storage facility available. Customers from Raleigh, Apex, Cary, Holly Springs, etc. will no longer have to drive to the lake towing boats, campers, and motor homes. In addition to reducing drive/towing mileage, time, and related expenses, allowing storage close to the Jordan Lake ramps will improve traffic safety and traffic flow by reducing the need for long distance towing along highway and local roads. By reducing towing related travel time and expenses, the Extra Garage IV facility will improve the overall customer experience for boating families visiting the Jordan Lake Recreational Areas.

Site 88772 is currently owned by The Extra Garage SSC IV, LLC, and consists of net 15.26 acres; site 17696 is also currently owned by The Extra Garage SSC IV, LLC, and consists of net 3.85 acres. Although the two parcels will be combined for development purposes, only 88772 will actually be used for construction of the proposed facility. No development will be done on parcel 17696 and the site will be left in a natural state.

Both parcels are currently undeveloped and are primarily natural pine forest with some hardwood trees scattered throughout. Parcel 88772,

which is to be developed, is a narrow, rectangular shaped parcel roughly 1933 feet long by 382 feet wide adjoining the Popular Pointe State Recreational area and Beaver Creek Road. Two knolls separate the property into roughly three drainage basins draining westward to the adjoining parcel. Based on both USGS maps and soils maps, no streams or bodies of water are located on the property and no development has occurred on the property. Slopes range from 6 to 12% generally with some locally steeper slopes near the three drainage ways. Elevations range from 245 to 283 feet above sea level across the site. It is surrounded by the Army Corp of Engineers on the west border. No water or sewer are currently available to the site and soils data suggests that the site does not contains soils suitable for septic use.

Development will be concentrated in the middle of the parcel and grading will result in a large, roughly flat pad with three large stormwater management facilities designed to control and treat stormwater to meet state and local standards. The proposed facility will have two entrances located on Beaver Creek Road, thus, providing access to multiple boat ramps and camping areas at Jordan Lake. Careful planning will leave large undisturbed areas on the north and south, therefore providing a natural buffer from the adjoining parcels. A large portion of the property frontage with Beaver Creek Road will remain natural with minimal tree removal.

A rezoning package has been presented to Chatham County requesting the approval for a Boat and Motor Home Storage facility. This will require a zoning change from Residential to a Neighborhood Business use with a specific approval for a Covered Boat and Motor Home Storage facility. The site will have the timber removed per the approved Erosion Control and Storm Water plans. Additionally, the site will be graded and the Storm Water drainage system will be installed per the Chatham County approved plans. Field investigations and conversations with local residents indicate no evidence of previous development or any negative previous use or any negative materials.

The proposed development would represent the fourth location for The Extra Garage Self Storage Center offering Covered Boat and Motor Home storage services; all previously locations are currently full and have waiting lists for available units. The proposed project will contain 202 boat and RV storage units as well as a small fenced outdoor storage area and marine fuel pump; the proposed structure design will meet or exceed the local and state building codes. As proposed, the project is designed to meet the local Watershed requirements by utilizing three separate stormwater BMPs and associated piping will used to collect runoff from the development. As previously indicated, no water or sewer availability is

located near the property and soils are unsuitable for septic fields; however, such utilities are not required for this facility.

Based on the above information, the project supports the Chatham County planning for businesses and will be another valuable addition to supporting the Jordan Lake Recreational Area customers.

2. Provide a project location map showing the surrounding areas.

See attachment 1.

3. Provide a project site plan showing existing and proposed facilities.

See site Plan, attachment 2.

4. Describe how this project fits into larger plans or connects with adjacent properties.

As noted in item 1, proposed facility supports the activities generally associated with the Jordan Lake Recreational Area. The Extra Garage IV is proposed in response to the expanding market for first class covered storage. This location is perfect for the area/region of customers that come to the Jordan Lake State Recreational areas. The proximity of The Extra Garage IV's location next to the State Recreational areas will provide the closest covered storage facility available. Customers from Raleigh, Apex, Cary, Holly Springs, etc. will no longer have to drive to the lake towing boats, campers, and motor homes. In addition to reducing drive/towing mileage, time, and related expenses, allowing storage close to the Jordan Lake ramps will improve traffic safety and traffic flow by reducing the need for long distance towing along highway and local roads. By reducing towing related travel time and expenses, the Extra Garage IV facility will improve the overall customer experience for boating families visiting the Jordan Lake Recreational Areas.

5. List and describe any public facilities or public benefits provided by the project.

There are no public facilities located on the property. Development benefits the public by providing facilities for covered boat and motor home storage within the Jordan Lake Recreational Area while also reducing tow traffic along the state and local roads in the area. The project's proximity to the entrance to the Ebenezer Church Boat Ramp and Popular Pointe Campground provides immediate access to these locations from a secure, covered storage facility.

6. Discuss the land acreage to be disturbed during each phase.

This project will consist of only a single phase with a land disturbance area of approximately 9.3 acres.

7. List the square footage and height (in stories) of new buildings.

The project will consist of 2 buildings approximately 95,332 square feet total. All buildings will be one story tall.

8. Describe proposed uses of all buildings and proposed facilities.

The facility will be used to provide Covered Boat and Motor Home storage services.

9. Show number of parking spaces in parking lots and decks.

There are no parking spaces on site.

10. Show areas to be cleared, graded, filled, paved, and landscaped.

See Site Plan, attachment 2.

11. Show connections to existing utility and sewer lines or new utilities.

This project will not have any public water or sanitary sewer connections to existing utilities. The only utility connection will be electrical.

12. Show wastewater management systems on a map.

As noted, no sanitary sewer or septic facilities are required for this site.

13. Show proposed areas of impervious and semi-impervious surfaces.

See Site Plan, attachment 2

14. Show and describe any proposed stormwater control devices.

See Site Plan, attachment 2. All water runoff will be directed into underground pipes that flow into one of three storm water BMPs on site.

ALTERNATIVES ANALYSIS

1. Discuss and compare all reasonable development alternatives (site selection, facility layout, utilities, stormwater management,

construction methods, open space preservation, and any other pertinent alternative considerations).

The parcel has no available water or sewer connections and a review of soils in the area indicate that it is unsuitable for septic fields due to poorly draining soils; therefore, alternative uses for this site are very restricted. Since boat and motor home storage facility do not require any water or sewer and the site has close proximity to the entrance of Ebenezer Church Boat Ramp and the Popular Pointe Campground, this site is ideally suited for the proposed use.

Additionally, due to the sites location in the Jordan Lake Watershed, a 24% limit is applied regarding impervious surfaces. As designed, the facility maximizes the benefits of placing the developed area nearer to the road frontage where elevations are generally higher and grades are generally flatter in order to allow for placement of the required stormwater devices in the lower areas of the site near the natural discharge points. This layout allows for greater balancing of the grading, reduced clearing and greater ability to mimic the natural drainage patterns of the site.

2. Discuss how the preferred alternative was selected and its benefits relative to other alternatives (including a no-build alternative, if applicable).

As noted above, the existing site is not suitable for development of typical residential dwellings, daycare facilities, recreation camp or commercial based projects due to the lack of suitable soils for septic use. Similarly, the lack of suitably well drained soils reduces the sites suitability for agricultural purposes. Additionally, the site is not suitable for use as a hunting or fishing club due to its proximity to Beaver Creek Road and the Popular Pointe Campground and the limited acreage available.

Although a no-build alternative is feasible, the same characteristics that make this site unsuitable for typical development make it ideal for development as proposed. Both its proximity to the Beaver Creek Road and the Popular Pointe Campground make it ideal for Boat/RV storage while the lack of useable soils for septic do not create a hindrance.

EXISTING ENVIRONMENT AND PROJECT IMPACTS

For each resource topic below, describe:

- A. Existing resource and conditions**
- B. Anticipated impacts (short-term construction impacts, long-term operation impacts, and indirect or secondary impacts)**

- C. Discuss how potential impacts to the resource will be avoided and minimized through alternative selection, design strategies, construction methods, and long-term maintenance procedures.**
- D. For unavoidable impacts, describe whether any compensatory mitigation is planned or required.**

1. Geography

- **Discuss the geographic setting, geology, and topography of the project area and adjacent areas.**

The site consists of two parcels, 896 & 1083 Beaver Creek Road. The first proposed entrance to the site is located ~1,000 lf north of the intersection of Tody Goodwin Road (SR 1900) and Beaver Creek Road (SR 1008) on the west side of Beaver Creek Road. The coordinates of 35°43'24.06" N, 79°00'25.00" W generally correspond to the center of the property.

The soils on the site are identified as Creedmoor-Green Level Complex, Group C soils.

Based on both USGS maps and soils maps, no streams or bodies of water are located on the property and no development has occurred on the property. Slopes range from 6 to 12% generally with some locally steeper slopes near the three drainage ways. Elevations range from 245 to 283 feet above sea level across the site. Drainage flows generally westward along three drainage ways. All areas to be graded are shown on the site plan included.

- **Provide topographic map of the property and surrounding area, use the county GIS website topography (2' contour interval) data at a scale appropriate for the project size, i.e. 1"=100', etc.**

See attachment 3, USGS Topographic map and County GIS Topographic map.

- **Identify any 100 year floodplain (FEMA Special Flood Hazard Areas) on or adjacent to the property. If present, provide an appropriate scale map of these flood-prone areas defined by the NC Flood Mapping Program.**

There are no FEMA flood hazards located on the property. There are FEMA flood hazards nearby on both sides of Beaver Creek Road. See attachment 4.

- **Show areas that will be graded or filled, and provide estimated cut/fill volumes.**

The proposed cut fill areas will be within the foot print of the proposed development. Preliminary cut/fill volumes are estimated to be roughly 34,000 cy of cut and 36,000 cy of fill which indicates a roughly balanced site.

- **If the project includes pond or dam work, show areas that will be flooded.**

Although stormwater management facilities are intended as shown in the plan set, no areas will be flooded.

2. Soils and Prime Farmlands

- **Identify dominant soils in the project area (County GIS or NRCS website) and show on a map.**

Soils on site are CrB & CrC. Both represent Creedmoor- Green Level Complex soils of Hydrologic Group C. See attachment 5.

- **Discuss any soil constraints (fill, wetland soils, septic suitability, slopes, etc.), and indicate those areas on a map.**

The soil is typical for the Jordan Lake area and has limited potential. The soil has been deemed as unsuitable for conventional septic.

- **Describe any soil disturbance or contamination expected as a result of this project**

Typical grading activities (e.g. localized cutting and filling) are proposed for the site, see attached plans. No soil contamination is expected.

- **If contamination is expected, discuss containment plans and procedures.**

No contamination is expected during construction or after the site is in use.

- **If soil will be relocated, specify the number of square yards / feet to be moved, and its relocation site.**

As noted, cut/fill estimates indicate a roughly balanced site and no material is intended to be relocated offsite.

- **Describe runoff management plans for the project.**

As per the attached plans the stormwater will be directed via a pipe system to one of three on site BMPs.

- **If soil disturbance is proposed, describe the off-site impacts expected from this activity.**

No offsite impacts due to onsite soil disturbance are expected. State and county required sediment and erosion control measures will be used during construction.

- **Provide a map of any prime or unique farmland soils in the project or service areas; include references used to make this determination.**

Prime Farmland Soils are indicated on attachment 6. It should be noted, however, that initial soils review indicates poorly draining soils are prevalent onsite and that no areas were identified as being suitable for septic use. This also indicates that the soils are unlikely to be suitable for agricultural use.

- **Describe impacts to prime or unique farmlands soils, including acreage estimates of lost farmland soils and retained farmland soils.**

This site consists mostly of prime farmland soils per Chatham County GIS. The entire disturbed area of 9.3 acres soils will impact Prime Farmland soils; however this land has not been farmed in many years, if at all. Additionally, it should be noted that initial soils review indicates poorly draining soils are prevalent onsite and that no areas were identified as being suitable for septic use. This also indicates that the soils are unlikely to be suitable for agricultural use.

3. Land Use

- **Provide a map showing current use of land on the site and surrounding properties.**

See attachment 7.

- **Discuss how the current land use fits into the surrounding area (conservation, development, ecological function, etc.)**

The current use of the land is vacant residential zoned land. This is similar to a lot of the large tracts of land in the area.

- **Provide the current zoning of the project site and the surrounding areas.**

See attachment 8

- **Discuss how the proposed uses fit into the intended land use of the area (conservation, development, ecological function, quality of life).**

The proposed use of boat and RV storage fits well with the County development of services for the Jordan Lake Recreational Area customers. This will serve local clients as well as visiting guests from all over the state.

- **Indicate whether zoning or local land use plans will need to be changed after project completion.**

A zoning change is requested with this development from residential to Neighborhood Business. No further zoning changes or land use plans are anticipated after completion of this project.

4. Wetlands

- **Indicate whether wetlands are present; describe the basis for determination and the identity of the person who made the determination.**

There are no wetlands within the project area Chatham County GIS. See attachment 9 for water resources.

- **Shows identified wetlands on a map, and describe all relevant details, such as acreage, types, delineation, function, etc.**

Not applicable, as there are no wetlands on site.

- **If wetlands are to be filled, specify the number of acres that will be affected.**

Not applicable, as there are no wetlands on site.

- **List all required permits and permitting agencies.**

No wetlands permits are applicable to this project.

- **If any diversions/additions/withdraws of surface water will affect wetlands, describe those activities.**

There are no wetlands on site, and as such no affects to wetlands are expected.

5. Public Lands and Scenic, Recreational, and State Natural Areas

- **Provide a map of County or municipal parks, scenic, recreational, or state natural areas (SNHAs, State or Federal Forests, Etc.) on or adjacent to the site / project area.**

The tract sits next to the Jordan Lake Recreational Area. This is a highly used boating and camping area where customers cannot leave the boats in the water overnight. Therefore, a Covered Storage facility next door is a big benefit and provides a valuable service to the customers. Attachment 10 shows the Public Lands, and Army Corps of Engineers Property.

6. Areas of Archaeological or Historic Value.

- **Discuss any archaeological or historical studies of the project location; provide relevant references.**

No archaeological or historical studies have been completed for the Site.

- **Describe and identify on a map structures (i.e., walls, buildings, etc.) on the site and provide estimated ages of those structures.**

As per site reconnaissance, no structures are present on the site.

- **Describe all impacts to any archaeological or historical resources in the proposed project area.**

No impacts to archeological or historical resources are proposed.

- **Describe plans for demolishing or rebuilding any structures.**

No impacts to archeological or historical resources are proposed.

- **Provide photographs of any significant resources, including all structures older than 50-years.**

No structures were present on site.

- **Provide all relevant correspondence with the Chatham County Historical Association and NC SHPO**

No correspondences were had with the above agencies as this is not applicable to this project.

7. Air Quality

- **Describe the project's impacts on ambient air quality.**

The Site will not have any direct impact on ambient air quality. During the construction phase air emissions will increase due to the use of heavy equipment and the burning of tree stumps but this increase will be negligible.

- **Describe plans for any open burning during or after construction.**

A burn permit will be obtained to allow for successful burning of the remaining stumps on site. This has been completed on the three previous TEG projects in the County without any problems.

- **Indicate the number of proposed parking spaces, if applicable.**

There will be no parking spaces for this project.

- **Describe whether the project will increase odor levels, or the likelihood of odor complaints.**

The project will not generate any increase in odors after construction. The smell of freshly turned soil (normal aerobic processes) can sometimes be detected at close range during earth grading however no homes are in close enough proximity to experience this therefore the likelihood of receiving complaints is extremely low to absent.

- **Provide a copy of any required traffic studies.**

No traffic studies have been completed or requested at this time.

8. Noise Levels

- **Discuss current noise levels; use a benchmark, if possible.**

The parcel is surrounded by government land except for an abandoned trailer to the south and a private residence to the north. There is currently slight road noise from Beaver Creek road.

- **Describe any increase in noise levels expected from this project.**

This project is not expected to have any adverse effect on noise levels after construction. During construction, the heavy equipment being used will temporarily increase noise levels slightly but the existing adjacent homes are situated away from the project area and should have very little impact from the construction noises.

- **Specify the distance at which the increased noise will be heard.**

The temporary noise generated by the construction of the site will likely not be heard beyond the adjacent highway.

- **Discuss whether surrounding properties will be affected by noise levels.**

The existing residences to the north and south and across Beaver Creek road may be able to hear the construction equipment during working hours but noise should be minimal and is not expected to go beyond those three residences. After construction, no noise should be heard offsite.

- **If commercial uses are proposed, specify the hours of operations.**

Hours of operation will be from 6 AM to 11 PM, 7 days a week.

9. Light Levels

- **Describe lighting plans for the project, including how lighting will impact adjacent residents and wildlife.**

The lighting for the project will be angled down on the outside of the building meeting the required code. There are two roadway signs

that will be near the entrances that will operate on a light sensor timer. The lights on the inside of the courtyard will activate at night and shine downward to illuminate the driving courtyard area. None of the provided lighting is expected to impact the adjacent residence. The lighting is not expected to have any adverse effects on wildlife.

10. Surface and Groundwater Resources (discuss separately)

- **Identify and provide a map of surface waters in the project area. Describe groundwater (aquifers) in the project area.**

There are no surface waters in the project area or on site. See attachment 9. Groundwater depths have not been determined yet.

- **Include names, locations, classifications, and use support ratings for surface waters.**

The site is in the Jordan Lake watershed. Classification WS-IV NSW.

- **Specify and show on a map the river basin in which the project is located.**

All of Chatham County, and thus this site is located in the Cape Fear River Basin. This site lies in the Jordan Lake Critical Watershed. See attachment 11

- **Discuss any known groundwater quality issues.**

There are no known groundwater quality issues.

- **Discuss drinking water sources.**

There are no drinking water sources in the project area.

11. Fish and Aquatic Habits

- **Describe fish and aquatic habits in and adjacent to the site/project area.**

There are no fish or aquatic habits in the project area or immediately adjacent to the site.

- **Discuss impacts to fish and aquatic life and their habits, including a map showing those habitats.**

No impacts to fish or aquatic life are expected with this project.

12. Wildlife and Natural Vegetation

- **Describe and provide a map of natural community types on and adjacent to the site/project area.**

The majority of the Site is comprised mostly of southern yellow pine species with a mixed hardwoods / conifers area located near the center of the site. The property on the east side of Beaver Creek is split with Evergreen shrub-land on the west side and Southern Yellow Pine on the east side. These same communities are common on the surrounding properties where forest community systems are present. The species located on the Site are not endangered or threatened and clearing will be kept to just what is necessary for the development.

- **List the species of dominant plants and animals observed on the site that typify those communities.**

See above for typical vegetation. Terrestrial animal species common to frequent these community types include raccoons, opossum, white-tail deer, field mouse, Carolina chickadee, cardinal, American robin, tufted titmouse, and red-eyed vireo.

- **Evaluate and discuss whether suitable habitat exists for rare, threatened, and/or endangered species, as described by the NC Natural Heritage Program.**

Species listed for Chatham County include the bald eagle, Cape Fear shiner, red-cockaded woodpecker, and harperella.

Bald eagle – Individuals could nest in trees; however, no nesting trees were observed on the Site. No Bald Eagle individuals were observed.

Cape Fear shiner – Given the proximity to the Jordan Lake, the Cape Fear shiner could utilize the surrounding stream channels. However, no streams are located onsite and no Cape Fear shiner individuals were observed.

Red-cockaded woodpecker (RCW) – Habitat may be suitable for Red-Cockaded woodpeckers; however, no RCW individuals were observed.

Harperella – This species is primarily found along the Deep River. The preferred habitat does not exist on the Site. No harperella individuals were observed.

- **If wildlife will be displaced, discuss any limitations of adjacent areas to support them.**

No wildlife is expected to be displaced. The site adjoins the Popular Pointe Campground entrance and is surrounded by the Jordan Lake Recreational Area. This acreage provides a huge area (37,000 AC +/-) for wildlife to live and a good supply of food for them.

- **Identify, list, and describe the distribution of the invasive species present on the site. Consult the NC Botanical Garden's web page, "Plants to avoid in the Southeast US" for a list of invasive species common to the region.**

No invasive species evaluation has been done at this time.

- **If forests will be cleared, discuss the extent of planned deforestation and specify the forestry methods to be used, including BMPs.**

Heavy equipment typically used for land clearing will be used on this project. Tree protection fencing/sediment and erosion control fencing will be used to demarcate the areas where trees will not be cut.

13. Hazardous Materials

- **List all hazardous materials to be stored or introduced during construction or operation.**

Marine fuel will be stored and dispensed on site after construction via a single fuel pump.

- **For each hazardous material, other than in de minimis quantities or for routine housekeeping purposes, describe the procedures to be used to ensure their proper management, storage, and disposal.**

All required gasoline handling, containment, storage and disposal regulations will be followed.

State and Federal Permits Required

- An NCDOT Driveway permit will be requested and approved prior to project completion.

References

Chatham County NC GIS
USDA Soils Mapping
USGS Topographic Survey
FEMA Mapping

Attachments

Attachment 1	GIS Ortho photo, for site location
Attachment 2	reduced size copy of proposed site plan
Attachment 3	Chatham County GIS Topographic Map USGS Topographic Map
Attachment 4	Floodplain Map system, site map FEMA Map Panel 9780
Attachment 5	GIS/USDA Soils Survey Map
Attachment 6	Prime Farmland Soils Map
Attachment 7	Natural Communities Map
Attachment 8	Current Zoning Map
Attachment 9	Water Resources Map
Attachment 10	Public & Scenic Lands
Attachment 11	Watershed Map
Attachment 12	Survey

ATTACHMENTS



CHATHAM COUNTY, NC



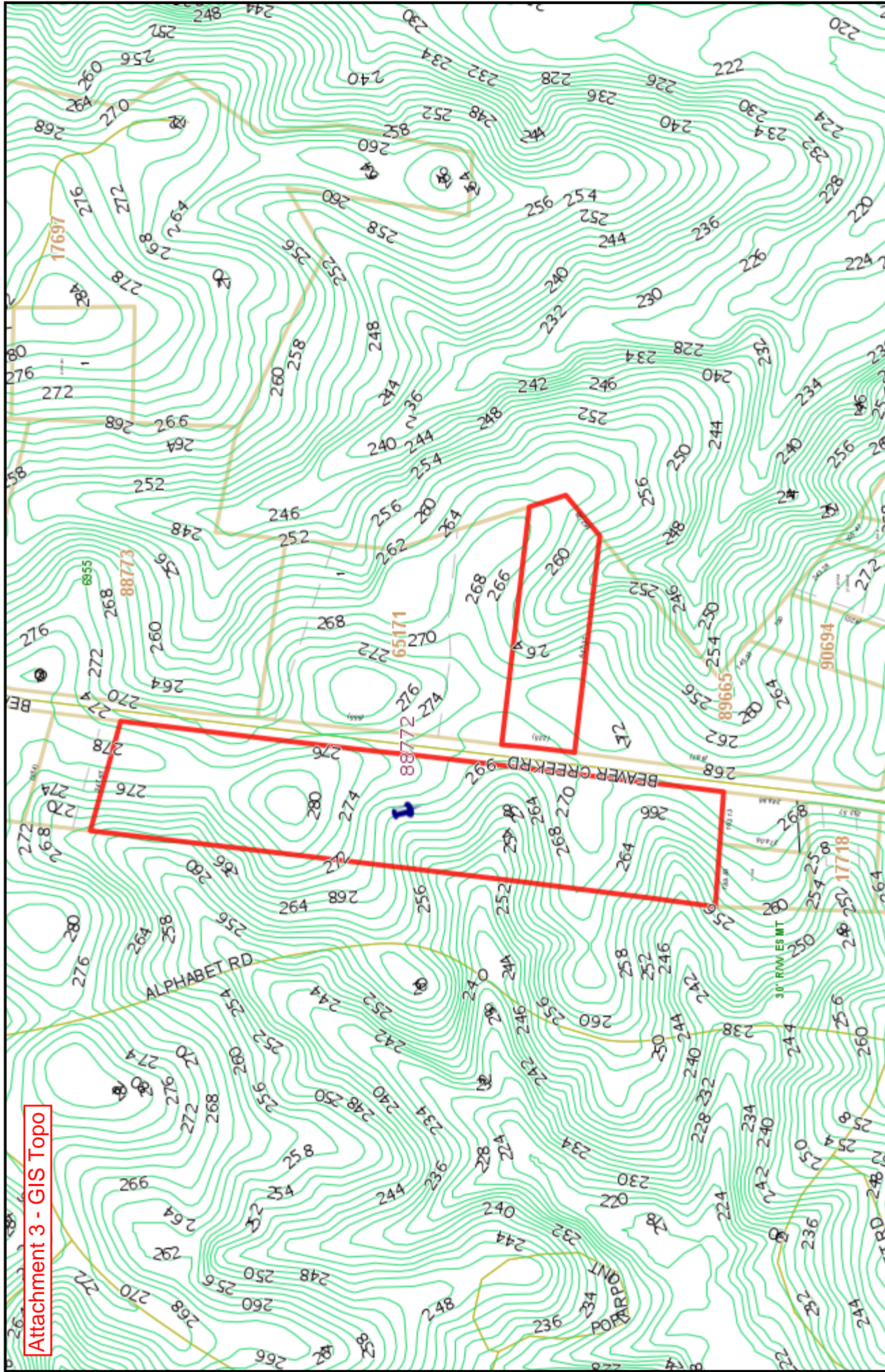
Extra Garage IV

Disclaimer:
The data provided on this map are prepared for the inventory of real property found within Chatham County, NC and are compiled from recorded plats, deeds, and other public records and data. This data is for informational purposes only and should not be substituted for a true title search, property appraisal, survey, or for zoning verification.

Parcel Number:	88772	Deed Book:	1834
Map Number:	9791-78-9148	Deed Page:	1073
Owner Name:	EXTRA GARAGE SELF STORAGE CENTER IV, LLC	Plat Book:	2010
Owner Address:	109 TROPEZ LN	Plat Page:	0262
Owner City:	CARY	Deed Acres:	16.545
Owner State:	NC	Physical Address:	896 BEAVER CREEK RD
Owner Zip:	27511	Improvement Value:	0
Tax Year:		Land Value:	315812
Description:	TR 2	Fire District:	107
		Township Code:	11

One Inch = 400 Feet





CHATHAM COUNTY, NC

Extra Garage IV



Parcel Number:	88772	Deed Book:	1834
Map Number:	9791-78-9148	Deed Page:	1073
Owner Name:	EXTRA GARAGE SELF STORAGE CENTER IV, LLC	Plat Book:	2010
Owner Address:	109 TROPEZ LN	Plat Page:	0262
Owner City:	CARY	Deed Acres:	16.545
Owner State:	NC	Physical Address:	896 BEAVER CREEK RD
Owner Zip:	27511	Improvement Value:	0
Tax Year:	27511	Land Value:	315812
Description:	TR 2	Fire District:	107
		Township Code:	11

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One Inch = 400 Feet

Attachment 3 - USGS TOPO

Deed Book: 1790
Deed Page: 526
Plat Book:: 2010
Plat Page: 0262
Deed Acres: 16.545
Physical Address: 896 BEAVER CREEK RD
Improvement Value: 0
Land Value: 315812
Fire District: 107
Township Code: 11

One Inch = 400 Feet



Parcel Number: 88772
Map Number: 9791-78-9148
Owner Name: TUCKER JOHNATHAN SCOTT
Owner Address: 141 COUNTRY HAVEN LANE
Owner City: FUQUAY VARINA
Owner State: NC
Owner Zip: 27526
Tax Year: TR 2
Description:

Deed Book:	1790
Deed Page:	526
Plat Book::	2010
Plat Page:	0262
Deed Acres:	16.54±
Physical Address:	896 B
Improvement Value:	0
Land Value:	3158±
Fire District:	107
Township Code:	11



One Inch = 400 Feet

Northing: = 719,448, Easting = 1,996,184

Northing: = 719,448, Easting = 1,999,652



Northing: = 715,980, Easting = 1,996,184

Northing: = 715,980, Easting = 1,999,652

This is an official copy of a portion of the above referenced flood map. This map incorporates changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.nfsc.fema.gov.

Without Base Flood Elevation (BFE)
Zone A, V, A99

With BFE or Depth
Zone AE, AO, AH, VE, AR

Regulatory Floodway

0.2% Annual Chance Flood Hazard

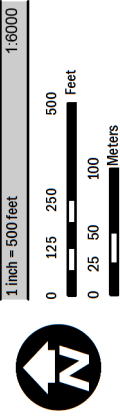
Future Conditions 1% Annual Chance Flood Hazard *Zone X*

Areas Determined to be Outside the 0.2% Annual Chance Flood Hazard *Zone X*

Jurisdiction Boundary

FIRM Panel Boundary

North Carolina State Plane Projection Feet (Zone 3200)
Datum: NAD 1983 (Horizontal), NAVD 1988 (Vertical)



FEMA National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

Panel(s): 9864, 9874

CONTAINS:

COMMUNITY
TOWN OF HILLSBOROUGH

CID
370343

Notice to User: The Map Number(s) shown below should be used when placing map orders; the Community Number(s) shown above should be used on insurance applications for the subject community.

SELECTED PANELS:

MAP NUMBER
3710986400J
3710987400J

EFFECTIVE DATE
2/2/2007
2/2/2007



FEMA: National Flood Insurance Program

Page 2 of 2



Panel(s):9864,9874

CONTAINS:

COMMUNITY
TOWN OF HILLSBOROUGH

CID
370343

Notice to User: The Map Number(s) shown below should be used when placing map orders; the Community Number(s) shown above should be used on insurance applications for the subject community.

SELECTED PANELS:

MAP NUMBER

3710986400J
3710987400J

EFFECTIVE DATE
2/2/2007
2/2/2007

NOTES TO USERS

This is an official FIRMette of a portion of the effective panels listed in the Title Block shown on Page 1. The information represented on this FIRMette was extracted from the effective digital flood hazard data available at <http://fris.nc.gov/fris>.

Base flood elevation data, floodway, nonencroachment widths, information on certain areas no in the Special Flood Hazard Areas protected by flood control structures, and other pertinent data are available in the Flood Insurance Study (FIS) available at <http://fris.nc.gov/fris>. Users should be aware that flood elevations shown on this FIRMette represent elevations rounded to one tenth of a foot (0.1') and should be utilized in conjunction with data available in the FIS.

NOTES TO USERS

Base map information and geospatial data used to develop this FIRMette were obtained from various organizations, including the participating local community(ies), state and federal agencies, and/or other sources. The primary base for this FIRM is aerial imagery acquired by the State in 2010. Information and geospatial data supplied by the local community(ies) that met FEMA base map specifications were considered the preferred source for development of the base map.

See geospatial metadata for the associated digital FIRMette for additional information about base map preparation. Base map features shown on this FIRMette, such as corporate limits, are based on the most up-to-date data available at the time of publication. Changes in the corporate limits may have occurred since this map was published. Map users should consult the appropriate community official or website to verify current conditions of jurisdictional boundaries and base map features. This map may contain roads that were not considered in the hydraulic analysis of streams where no new hydraulic model was created during the production of this statewide format FIRM.

Flood elevations on this map are referenced to either or both the North American Vertical Datum of 1988 (NAVD 88) or National Geodetic Datum of 1929 (NGVD 29), and are labeled accordingly. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. To obtain current elevation, description, and/or location information for bench marks shown on this map, or for information regarding conversion between NGVD 29 and NAVD 88, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov/>.

MORE INFORMATION

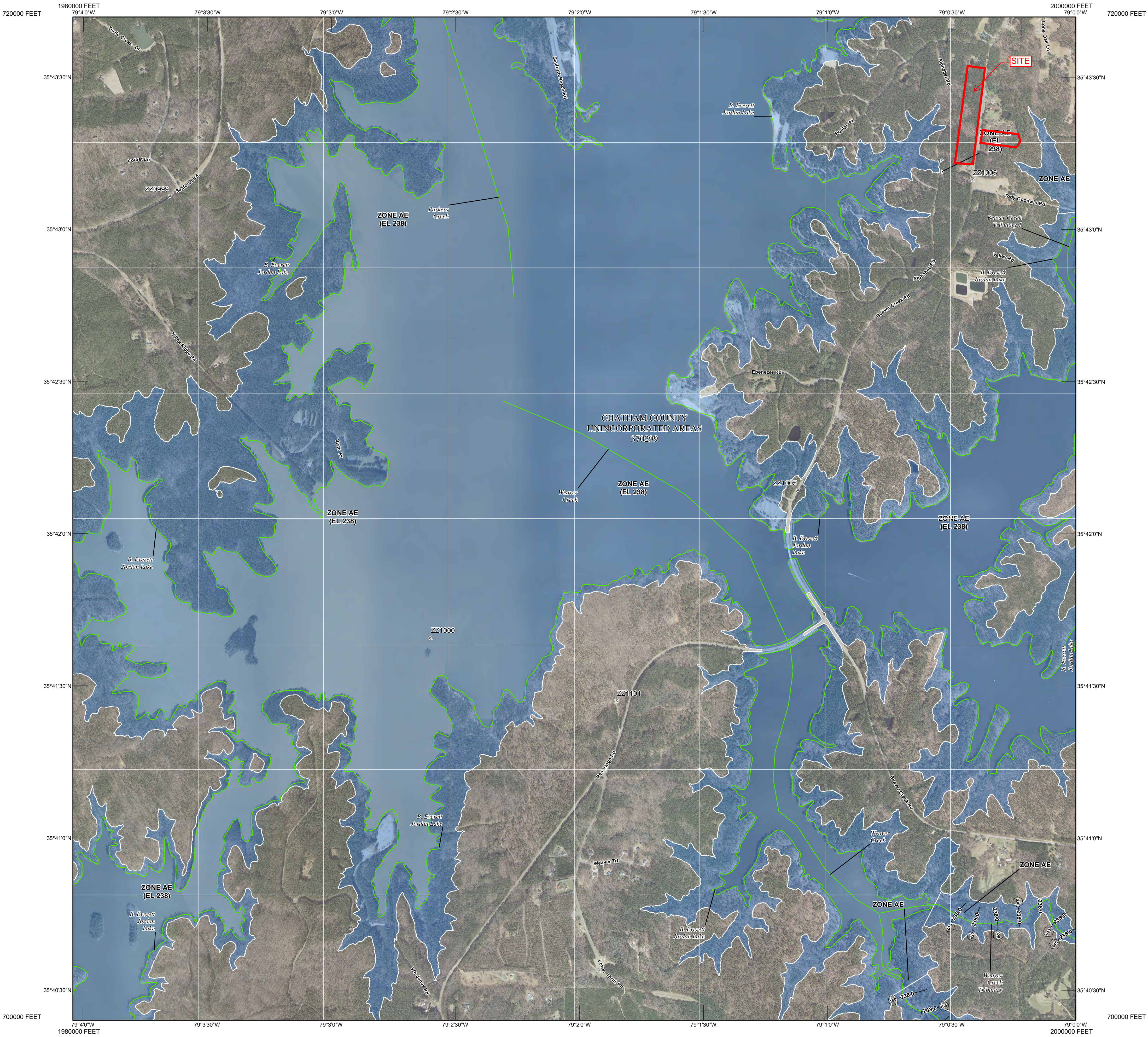
Letters of Map Amendment (LOMA)	1-877-336-2627 http://msc.fema.gov/
Letters of Map Revision (LOMR)	919-715-5711 www.ncfloodmaps.com
Flood Insurance Availability	
North Carolina Division of Emergency Management (NCDEM)	919-715-5711 http://www.ncrcimecontrol.org/nrip
National Flood Insurance Program (NFIP)	1-877-638-6620 http://www.fema.gov/business/nfip
Questions about this FIRMette	1-877-336-2627 http://fema.gov

LEGEND

	Coastal Barrier Resources System (CBRS) Areas
	Otherwise Protected Areas (OPAs)
	Letters of Map Revision (LOMR)
	1% Annual Chance Floodplain Boundary
	0.2% Annual Chance Floodplain Boundary
	Floodway Boundary
	Limit of Study
	Channel, Culvert, Aqueduct, or Storm Sewer
	Accredited or Provisionally Accredited Levee, Dike or Floodwall
	Non-accredited Levee, Dike or Floodwall
	Hydrographic Feature
	Profile Baseline
	1% Annual Chance Cross Sections
	Coastal Transect
	North Carolina Geodetic Survey Bench Mark (for more information visit http://www.ngs.state.nc.us)
	National Geodetic Survey Bench Mark (for more information visit http://www.ngs.noaa.gov)
	NGS-58 GPS 2.5 cm Vertical Control Marks or Contractor-Established NCFMP Bench Marks (for more information visit http://www.ngs.state.nc.us)
	● M 1.5 River Mile Marker

MAP REVISIONS

There are no map revisions for the selected area.



This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of North Carolina and the Federal Emergency Management Agency (FEMA). The State of North Carolina has implemented a long term approach to floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map flood hazard areas at the local level. As a part of this effort, the State of North Carolina has joined in a Cooperating Technical State agreement with FEMA to produce and maintain this digital FIRM.

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTP://FRIS.NC.GOV/FRIS](http://FRIS.NC.GOV/FRIS)

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE)
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with Average Depth Less Than One Foot or With Drainage Areas of Less Than One Square Mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
OTHER AREAS		Area with Reduced Flood Risk due to Levee See Notes Zone X
		Areas Determined to be Outside the 0.2% Annual Chance Floodplain Zone X
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer Accredited or Provisionally Accredited Levee, Dike, or Floodwall
		Non-accredited Levee, Dike, or Floodwall
		North Carolina Geodetic Survey bench mark
		National Geodetic Survey bench mark
		Contractor Est. NCFMP Survey bench mark
		Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
OTHER FEATURES		Coastal Transect
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Limit of Study
		Jurisdiction Boundary

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at <http://msc.fema.gov>. An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) revising portions of this panel, and digital versions of this FIRM may be available. Visit the North Carolina Floodplain Mapping Program website at <http://www.ncfloodmaps.com>, or contact the FEMA Map Service Center.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in the community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by the North Carolina Floodplain Mapping Program (NCFMP). The source of this information can be determined from the metadata available in the digital FLOOD database and in the Technical Support Data Notebook (TSDN).

ACCREDITED LEEVE NOTES TO USERS: If an accredited levee note appears on this panel check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nifp/index.shm>.

PROVISIONALLY ACCREDITED LEEVE NOTES TO USERS: If a Provisionally Accredited Levee (PAL) note appears on this panel, check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.10 of the NIP regulations. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicates the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect de-accreditation of the levee system. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nifp/index.shm>.

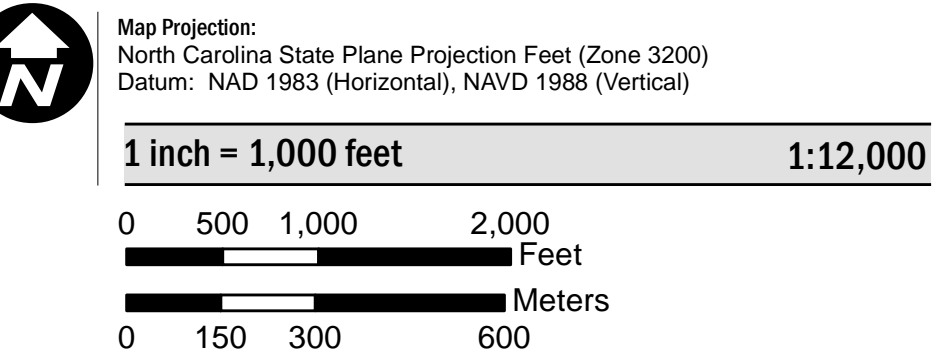
LIMIT OF MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding zones the AE Zone category limit has been divided by a Limit of Moderate Wave Action (LMWA). The LMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LMWA (or between the shoreline and the LMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE

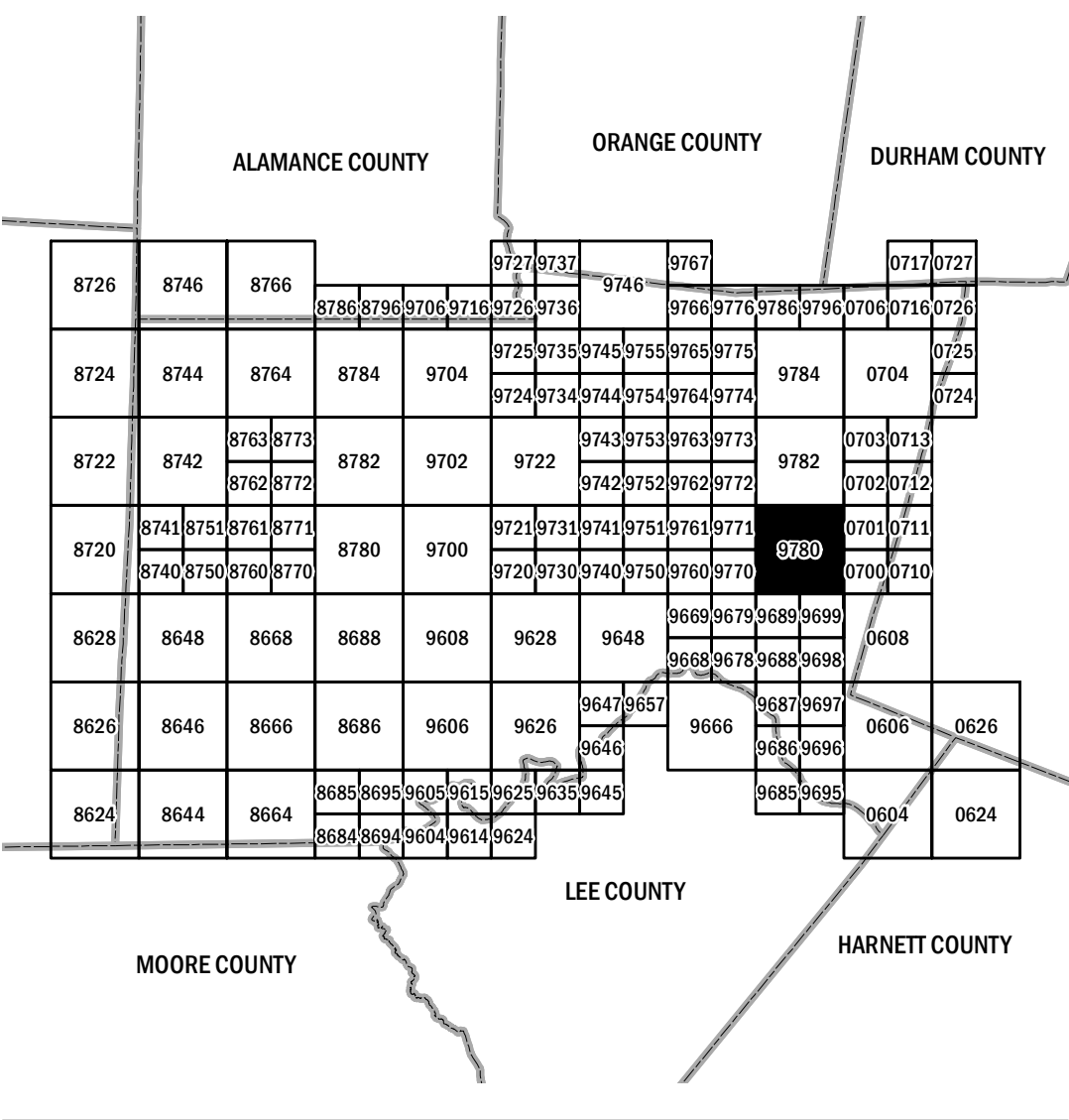
This map may include approximate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are newly built or substantially improved on or after the date(s) indicated on the map. For more information see http://www.fws.gov/habitatconservation/coastal_barrier.html, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-WILD.

CBRS Area Otherwise Protected Area

SCALE



PANEL LOCATOR



National Flood Insurance Program

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

NORTH CAROLINA

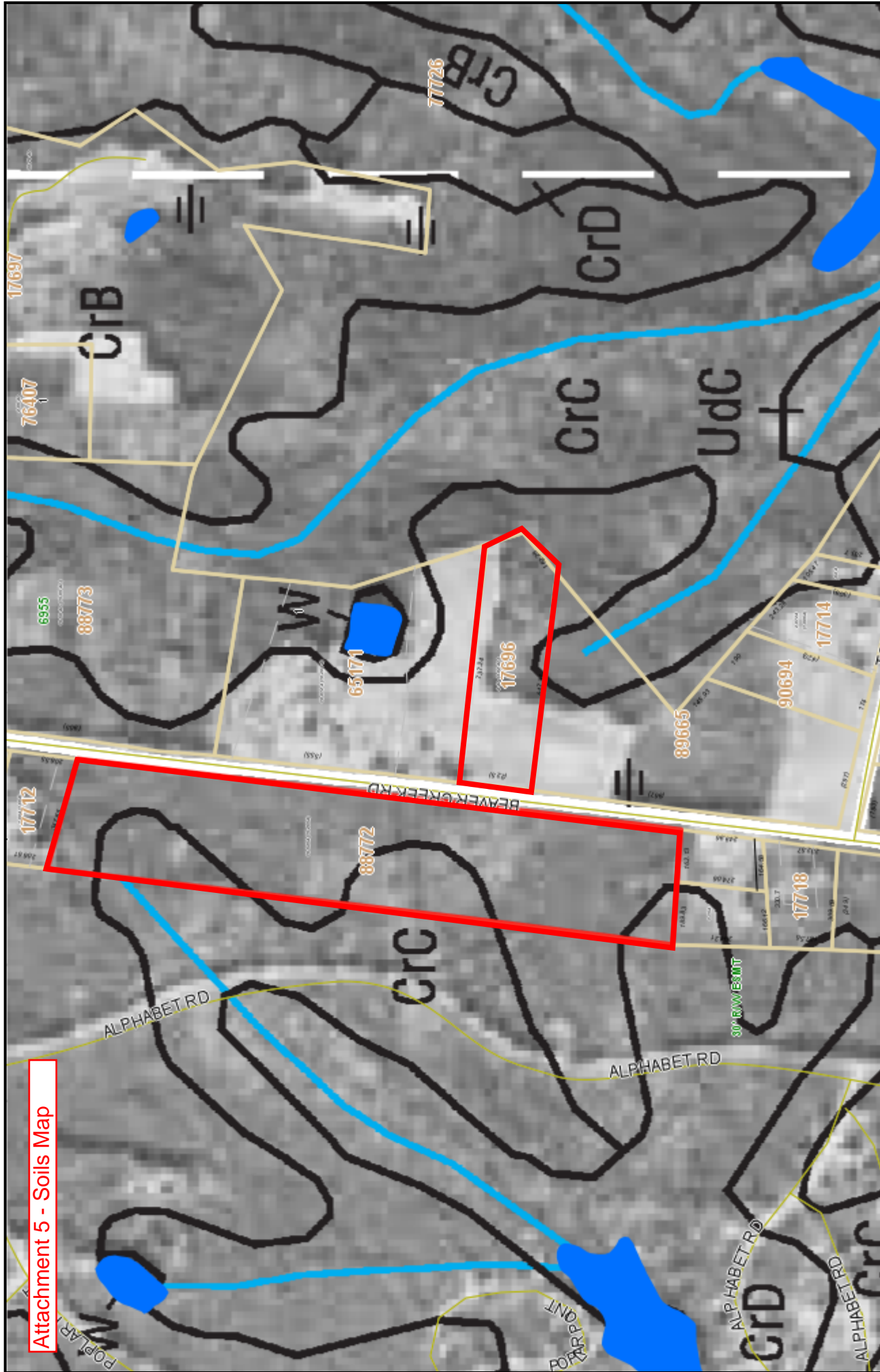
PANEL 9780

Panel Contains:

COMMUNITY	CID	PANEL	SUFFIX
CHATHAM COUNTY	370299	9780	J

MAP NUMBER
3710978000J
MAP REVISED
02/02/07

Attachment 5 - Soils Map



CHATHAM COUNTY, NC

15-022 EGIV



Disclaimer:
The data provided on this map are prepared for the inventory of real property found within Chatham County, NC and are compiled from recorded plats, deeds, and other public records and data. This data is for informational purposes only and should not be substituted for a true title search, property appraisal, survey, or for zoning verification.

Parcel Number: 88772
Map Number: 9791-78-9148
Owner Name: TUCKER JOHNATHAN SCOTT
Owner Address: 141 COUNTRY HAVEN LANE
Owner City: FUQUAY VARINA
Owner State: NC
Owner Zip: 27526
Tax Year: 2010
Description: TR 2

Deed Book: 1790
Deed Page: 526
Plat Book: 2010
Plat Page: 0262
Deed Acres: 16.545
Physical Address: 896 BEAVER CREEK RD
Improvement Value: 0
Land Value: 315812
Fire District: 107
Township Code: 11



One Inch = 400 Feet

Attachment 6 - Prime Farmland Soils

Disclaimer:
The data provided on this map are prepared for the inventory of real property found within Chatham County, NC and are compiled from recorded plats, deeds, and other public records and data. This data is for informational purposes only and should not be substituted for a true title search, property appraisal, survey, or for zoning verification.

Deed Book:	1834
Deed Page:	1073
Plat Book:	2010
Plat Page:	0262
Deed Acres:	16.54
Physical Address:	896 B
Improvement Value:	0
Land Value:	3158
Fire District:	107
Township Code:	11

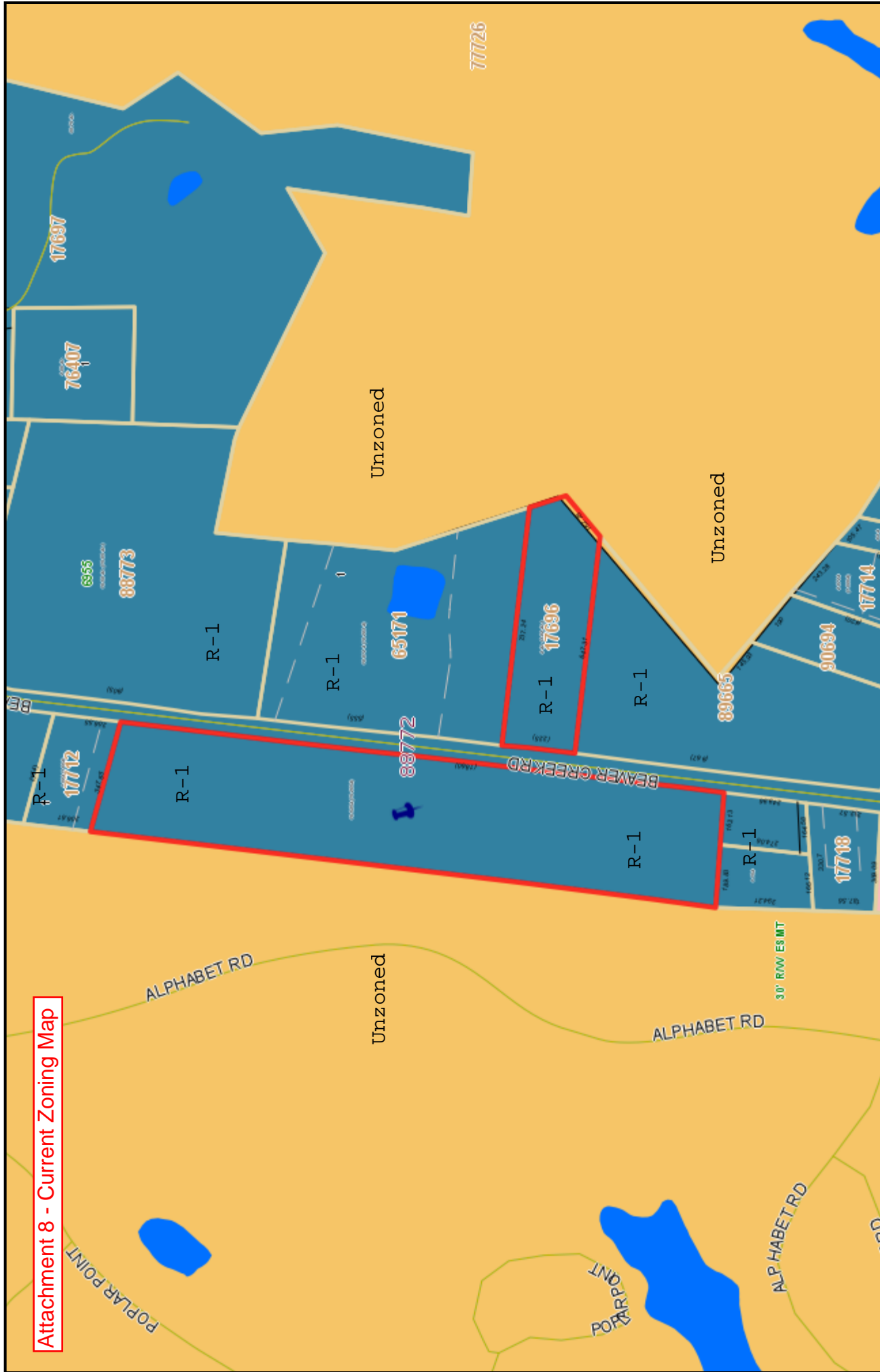
One Inch = 400 Feet

Disclaimer:
The data provided on this map are prepared for the inventory of real property found within Chatham County, NC and are compiled from recorded plats, deeds, and other public records and data. This data is for informational purposes only and should not be substituted for a true title search, property appraisal, survey, or for zoning verification.

Deed Book:	1834	
Deed Page:	1073	
IV, LLC	Plat Book::	2010
	Plat Page:	0262
Deed Acres:	16.545	
Physical Address:	896 BEAVER CREEK RD	
Improvement Value:	0	
Land Value:	315812	
Fire District:	107	
Township Code:	11	One Inch =

One Inch = 400 Feet

Attachment 8 - Current Zoning Map



CHATHAM COUNTY, NC

Extra Garage IV



Parcel Number: 88772
 Map Number: 9791-78-9148
 Owner Name: EXTRA GARAGE SELF STORAGE CENTER IV, LLC
 Owner Address: 109 TROPEZ LN
 Owner City: CARY
 Owner State: NC
 Owner Zip: 27511
 Tax Year: 27511
 Description: TR 2

Deed Book: 1834
 Deed Page: 1073
 Plat Book: 2010
 Plat Page: 0262
 Deed Acres: 16.545
 Physical Address: 896 BEAVER CREEK RD
 Improvement Value: 0
 Land Value: 315812
 Fire District: 107
 Township Code: 11



One Inch = 400 Feet

Disclaimer:
 The data provided on this map are prepared for the inventory of real property found within Chatham County, NC and are compiled from recorded plats, deeds, and other public records and data. This data is for informational purposes only and should not be substituted for a true title search, property appraisal, survey, or for zoning verification.

Attachment 9 - Water Resources



Note:
No Wetlands shown on site

CHATHAM COUNTY, NC

Extra Garage IV

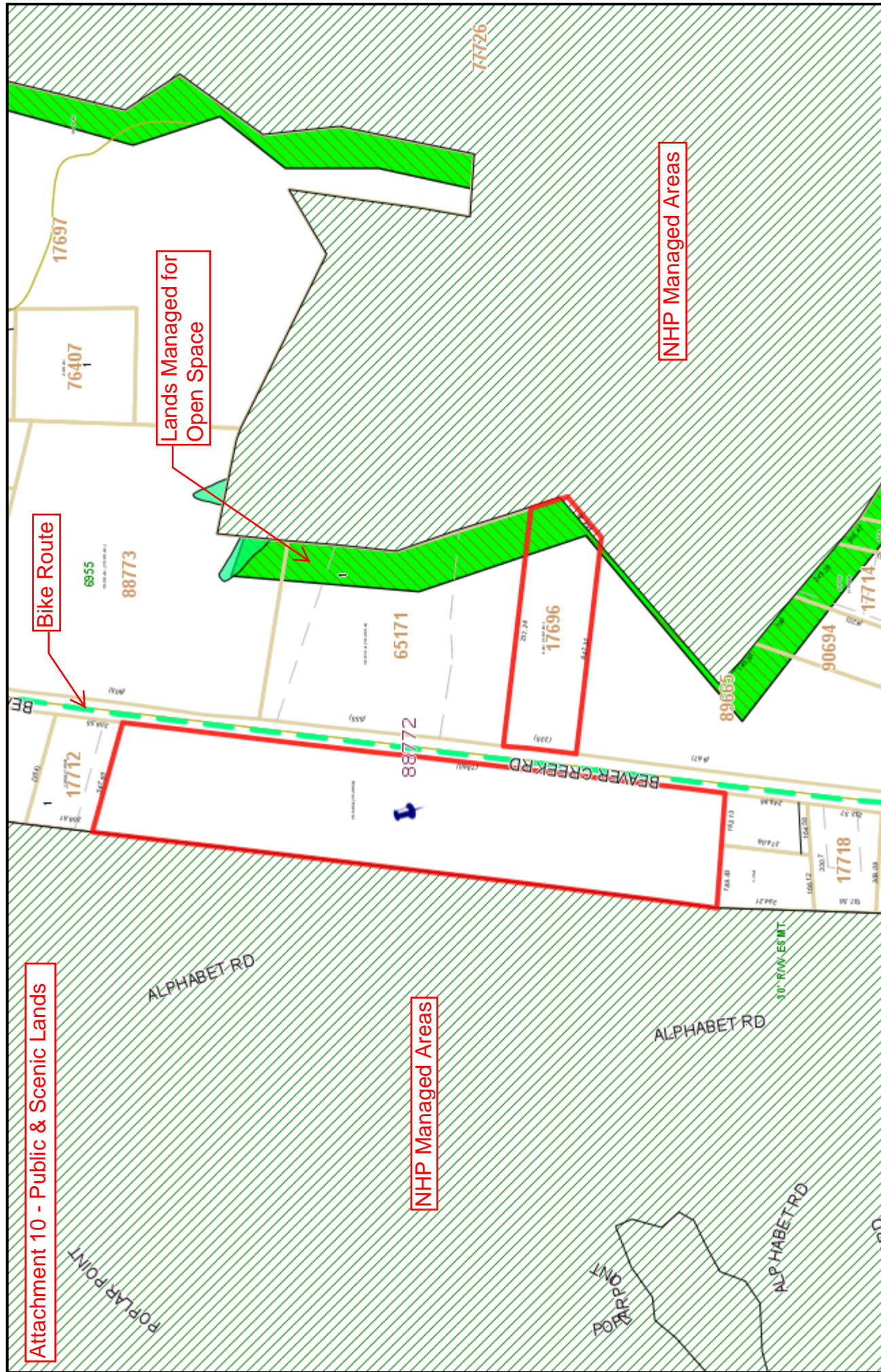


Parcel Number:	88772	Deed Book:	1834
Map Number:	9791-78-9148	Deed Page:	1073
Owner Name:	EXTRA GARAGE SELF STORAGE CENTER IV, LLC	Plat Book:	2010
Owner Address:	109 TROPEZ LN	Plat Page:	0262
Owner City:	CARY	Deed Acres:	16.545
Owner State:	NC	Physical Address:	896 BEAVER CREEK RD
Owner Zip:	27511	Improvement Value:	0
Tax Year:		Land Value:	315812
Description:	TR 2	Fire District:	107
		Township Code:	11

One Inch = 400 Feet



Disclaimer:
The data provided on this map are prepared for the inventory of real property found within Chatham County, NC and are compiled from recorded plats, deeds, and other public records and data. This data is for informational purposes only and should not be substituted for a true title search, property appraisal, survey, or for zoning verification.



CHATHAM COUNTY, NC



Extra Garage IV

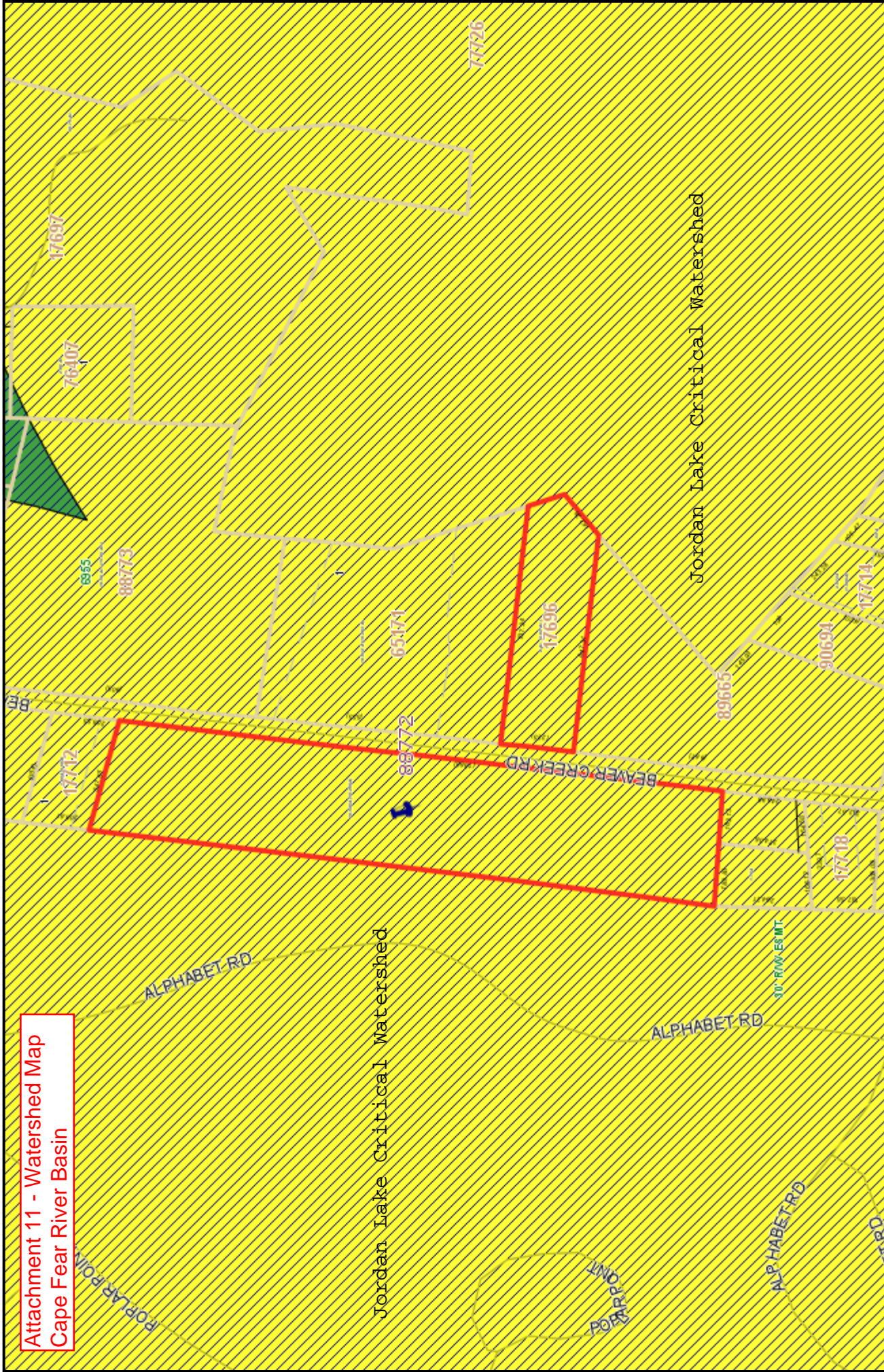
Disclaimer:
The data provided on this map are prepared for the inventory of real property found within Chatham County, NC and are compiled from recorded plats, deeds, and other public records and data. This data is for informational purposes only and should not be substituted for a true title search, property appraisal, survey, or for zoning verification.

Parcel Number:	88772	Deed Book:	1834
Map Number:	9791-78-9148	Deed Page:	1073
Owner Name:	EXTRA GARAGE SELF STORAGE CENTER IV, LLC	Plat Book:	2010
Owner Address:	109 TROPEZ LN	Plat Page:	0262
Owner City:	CARY	Deed Acres:	16.545
Owner State:	NC	Physical Address:	896 BEAVER CREEK RD
Owner Zip:	27511	Improvement Value:	0
Tax Year:		Land Value:	315812
Description:	TR 2	Fire District:	107
		Township Code:	11
			One Inch =



One Inch = 400 Feet

Attachment 11 - Watershed Map
Cape Fear River Basin



CHATHAM COUNTY, NC

Extra Garage IV



Parcel Number: 88772
 Map Number: 9791-78-9148
 Owner Name: EXTRA GARAGE SELF STORAGE CENTER IV, LLC
 Owner Address: 109 TROPEZ LN
 Owner City: CARY
 Owner State: NC
 Owner Zip: 27511
 Tax Year: 2010
 Description: TR 2

Deed Book: 1834
 Deed Page: 1073
 Plat Book: 2010
 Plat Page: 0262
 Deed Acres: 16.545
 Physical Address: 896 BEAVER CREEK RD
 Improvement Value: 0
 Land Value: 315812
 Fire District: 107
 Township Code: 11



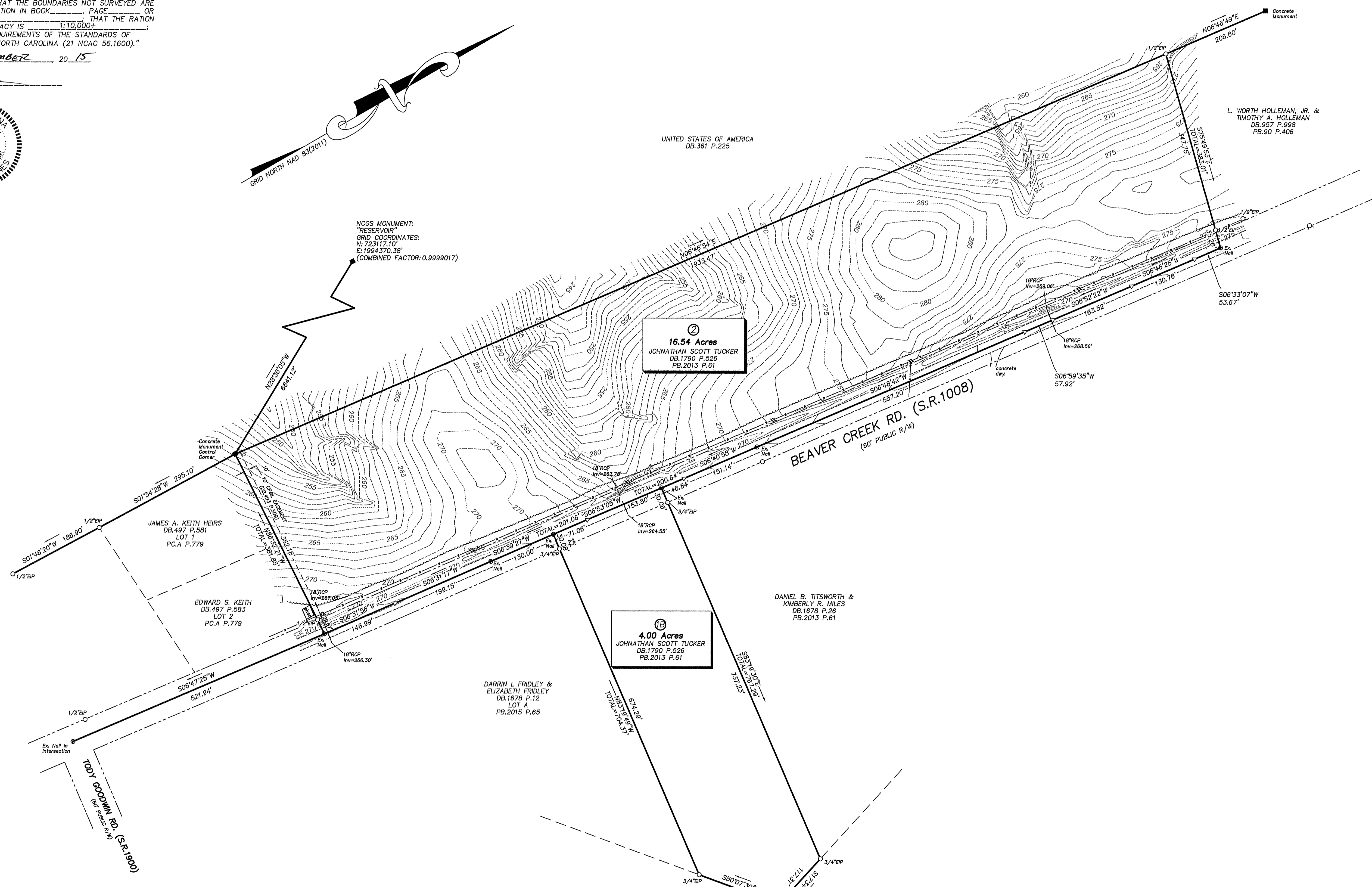
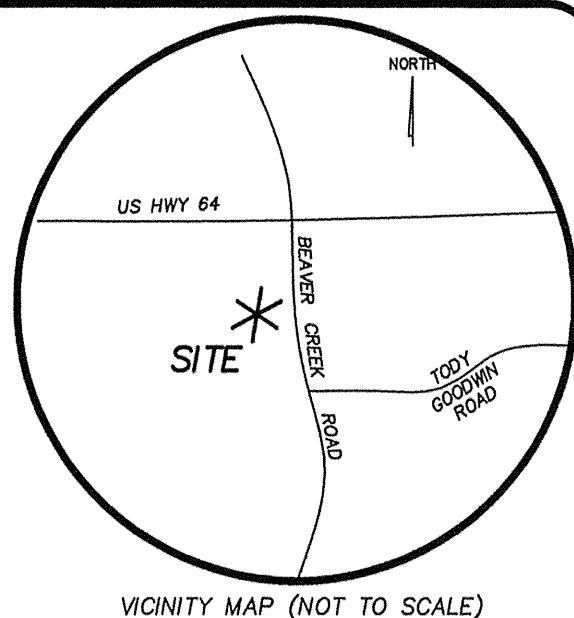
Disclaimer:
 The data provided on this map are prepared for the inventory of real property found within Chatham County, NC and are compiled from recorded plats, deeds, and other public records and data. This data is for informational purposes only and should not be substituted for a true title search, property appraisal, survey, or for zoning verification.

One Inch = 400 Feet

I CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN BOOK 1790, PAGE 526 OR OTHER REFERENCE SOURCE _____); THAT THE BOUNDARIES NOT SURVEYED ARE INDICATED AS DRAWN FROM INFORMATION IN BOOK _____, PAGE _____ OR OTHER REFERENCE SOURCE _____; THAT THE RATION OF PRECISION OR POSITIONAL ACCURACY IS 1:10,000 AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA (21 NCAC 56.1600)."

THIS 9th DAY OF December, 2015

R.S. Jones
PROFESSIONAL LAND SURVEYOR

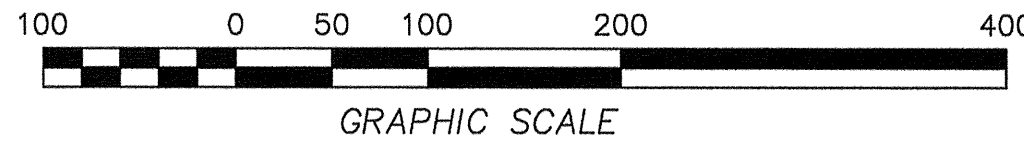


LEGEND

These standard symbols will be found in the drawing.

- UTILITY POLE
- REBAR FOUND
- PK NAIL
- EXISTING IRON PIPE
- IRON PIPE SET
- STONE FOUND
- CONCRETE MONUMENT
- COMPUTED POINT
- RIGHT OF WAY

NOTES:
1. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.
2. SURVEY PERFORMED WITHOUT THE BENEFIT OF A TITLE SEARCH. REFERENCED MATERIALS ONLY USED. THERE MAY EXIST OTHER DOCUMENTS OF RECORD THAT AFFECT THIS PROPERTY.
3. NO ATTEMPT MADE TO LOCATE CEMETERIES, WETLANDS, HAZARDOUS MATERIALS SITES, UNDERGROUND UTILITIES, OR ANY OTHER FEATURES ABOVE OR BELOW GROUND OTHER THAN THOSE SHOWN.
4. ALL AREAS BY COORDINATE COMPUTATION.
5. NEW IRON RODS SET AT ALL CORNERS UNLESS OTHERWISE NOTED.



SURVEY FOR:
THE EXTRA GARAGE IV

SCALE: 1" = 100'
NEW HOPE TOWNSHIP - CHATHAM COUNTY, NC
DATE: DECEMBER 4, 2015

R.S. JONES & ASSOCIATES, INC.
LAND SURVEYORS
LICENSE NO.: C-2585
201 WEST CLAY STREET
MEBANE, N.C. 27302
PH: (919) 563-3623 FAX: (919) 563-0086

REFERENCES
DB.1790 P.526
PB.2013 P.61