Environmental Impact Assessment

KIRAN ATHLETIC FIELDS
ROBERTS CHAPEL CHURCH ROAD
GOLDSTON, CHATHAM COUNTY,
NORTH CAROLINA
PILOT PROJECT 8770.1

PREPARED FOR:

SUMMEY ENGINEERING ASSOCIATES, PLLC
PO BOX 968
ASHEBORO, NORTH CAROLINA 27204

PREPARED BY:

PILOT ENVIRONMENTAL, INC.
PO BOX 128
KERNERSVILLE, NORTH CAROLINA 27285

JANUARY 4, 2023
PILOT PROJECT 8770.1

PILOT ENVIRONMENTAL, INC

January 5, 2023

Mr. Mack Summey
Summey Engineering Associates, PLLC
PO Box 968
Asheboro, North Carolina 27204

Reference: Kiran Athletic Fields
Approximate 37.3-Acre Tract
Roberts Chapel Church Road
Goldston, Chatham County, North Carolina
Pilot Project 8770.1

Dear Mr. Summey:

Pilot Environmental, Inc. (Pilot) is pleased to submit this Environmental Impact Assessment (EIA) report for the approximate 37.3-acre tract located south of Roberts Chapel Church Road in Goldston, Chatham County, North Carolina. The assessment was performed in general accordance with Chatham County Environmental Impact Assessment Requirements. If you have any questions regarding our assessment of the subject site or our conclusions, please do not hesitate to call us at 336.310.46.827.

Sincerely,

Kylie A. Walker
Project Manager

David S. Brame, PWS
Senior Project Manager

Proposed Project Description and Need:

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

This project proposes the development of athletic cricket fields. The project has been designed to avoid and minimize impacts to the environment to the extent possible. The Kiran Athletic Fields are sited on an approximate 37.3-acre tract located south of Roberts Chapel Church Road in Goldston, Chatham County, North Carolina. The site is identified by the Chatham County Geographical Information System (GIS) as Parcel Identification Numbers (PINs) 0009268 and 0088797. The site contains undeveloped, wooded land and fields. Streams and wetlands are located on the eastern and western potions of the site. A jurisdictional pond is located on the eastern portion of the site, and a non-jurisdictional pond is located on the central portion of the site.

The proposed athletic fields will be constructed within one phase. No additional phases are planned. The development will include six grass cricket fields, a clubhouse restaurant, an access road, and associated parking areas. In order to construct the development, clearing and grubbing of the wooded land will be required. There will be no disturbance of the jurisdictional wetlands, pond, and streams or the 50-foot vegetated buffers. The buffers and clearing limits will be clearly marked in the field before any clearing begins. The clubhouse restaurant will utilize a water supply well and on-site septic system. All areas downslope of disturbed areas will be protected by silt fence. Portions of the site will be leveled to accommodate the cricket fields, parking lots and restaurant building. The cricket fields, slopes and common areas will be seeded and maintained in grass. Four of the parking lots will be paved, and one parking lot will be gravel.

The anticipated construction schedule is estimated to be three to six months.

2. Provide a project location map showing surrounding areas:

See attached Site Plan and Drawings.

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

See attached Site Plan.

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

This project is stand-alone and not associated with or connected to larger or adjacent projects. However, the project is compatible with neighboring properties as it will be used for recreation and will not contain large scale buildings and will be maintained as grass fields, grassed common areas and wooded land. The surrounding properties contain wooded land and fields with scattered agricultural structures and single-family residences.

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

The project is in response to a regional need for increased access to the sport of cricket, fitness, leisure, and sense of community. There are no cricket facilities within or proximate to Chatham County. Currently, in order to play, it is necessary to play at a park or athletic field not designed for such uses. The proposed facilities will allow cricket to be played as intended and within the rules of the sport. This project will provide a place of gathering for the residents of Chatham County. The complex will also accommodate tournaments and generate a pull for out-of-town players and spectators. It will increase the tax base without much demand on public services. It is also considered a low impact development that will not alter the pre-development stormwater runoff characteristics of the site.

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

The site is approximately 37.3-acres. Clearing and grubbing of the site will be required for approximately 26 acres. There will be no disturbance of approximately 11 acres that consists of jurisdictional wetlands, a pond, streams, associated vegetative buffers, and boundary setbacks. The remaining approximate 26 acres will be cleared in preparation for the installation of the access road, parking areas, clubhouse restaurant, and cricket fields. All areas downslope of disturbed areas will be protected by silt fence. The site will generally maintain natural drainage. At the completion of construction, all disturbed areas will be seeded to establish permanent herbaceous vegetation that will be routinely maintained.

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

The project includes the construction of a 2,500 square foot, single-story clubhouse restaurant.

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

The new facility will be used as a clubhouse restaurant.

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

See attached Site Plan.

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

See attached Site Plan.

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

See attached Site Plan.

12. Show wastewater management systems on a map:

See attached Site Plan.

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

The proposed impervious surfaces include the paved parking areas, access road, and clubhouse restaurant. The overall proposed impervious area on site is low (0.93%).

14. Show and describe any proposed stormwater control devices:

Based on the low amount of build-upon-area and impervious services, stormwater control devices are not proposed. The resulting facilities will consist mostly of flat grassed areas and broad swales with low runoff potential. Concentrated stormwater flows are not anticipated beyond those of existing conditions.

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 site location was selected based on parcel size, availability, slope, and community needs. A site evaluation has been performed to determine design possibilities and limitations. The nature of this type of development does not require a significant burden on neighboring properties or the utilities. The alternative to the proposed project includes different layouts within the proposed site and a no-build alternative.

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

The proposed site layout (preferred alternative) was determined after identifying the locations of streams, ponds, and wetlands. The proposed layout was created to avoid impacts to jurisdictional waters. Provided that the site could be developed for the proposed use with significant impacts to natural resources, no other off-site alternatives were evaluated. Other layouts and alternate properties would likely require greater impacts to the environment and jurisdictional waters. The no-build alternative is not responsive to the community needs for increased access to athletics and leisure and may be more environmentally damaging given the site suitability for other types of development that are not low impact.

Existing Environment and Project Impacts:

For each resource topic below, describe:

A. Existing resources and conditions:

The site is approximately 37.3-acres. The site contains undeveloped, wooded land and fields. Streams and wetlands are located on the eastern and western potions of the site. A jurisdictional pond is located on the eastern portion of the site, and a non-jurisdictional pond is located on the central portion of the site. The wooded land consists of an approximate 30-year-old mixed hardwood stand that contains sweet-gums, white oak, northern red oak, and loblolly pine.

B. Anticipated impacts (short-term construction) impacts, long-term operation impacts, and indirect or secondary impacts):

Tree removal in some areas will be required to complete the project. There will be no impacts or clearing of jurisdictional streams, ponds, wetlands, or associated buffers. Short term construction impacts will include grading and exposed sediments. The long-term operation impact will be increased access to community recreation. Indirect or secondary impacts are not anticipated by the project.

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:

Tree removal has been minimized to the extent possible. The buffers around streams, ponds and wetlands will remain vegetated to protect water resources. Wooded areas that contain similar and higher quality wooded habitat will remain on surrounding properties**.** A sediment and erosion control plan will be prepared in accordance with state and local requirements for review and approval prior to disturbance activities. Sediment and erosion control measures will be implemented to reduce sediment impacts to downgradient waters. The site will be stabilized with permanent vegetation upon completion of grading activities.

D. For unavoidable impacts, describe whether any compensatory mitigation is planned or required:

There is no compensatory mitigation planned or required.

1. Geography:

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

  The natural geography of the area is rolling. The site is generally sloping to the south and drains toward tributaries to Indian Creek and the Cape Fear River.

- **Provide a 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 attached Drawing 3.

  Identify any 100-year floodplains (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:

  The site is located in Zone X. See attached Drawing 4.

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

  Cut and fill is anticipated in the locations of the cricket fields, parking areas, access road, and clubhouse restaurant. Approximately 30,000-40,000 cubic yards of soil are anticipated to be moved. Cut and fill will be balanced so that no off-site borrowing or wasting is required. The site will maintain existing drainage across the site. No impacts to the groundwater table are anticipated by the project.

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

  The non-jurisdictional pond will be expanded. See attached Site Plan.

2. Soils and Prime Farmlands:

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

  See attached Drawing 5 and Drawing 5A. The USDA Web Soil Survey of Chatham County (Drawing 2) identifies the following mapping units on the site:

Map unit symbol	Map unit name	County Hydric Soil
BaE	Badin-Nanford complex, 15 to 30 percent slopes	No
BdB	Badin-Tarrus complex, 2 to 8 percent slopes	No
CbC	Callison-Misenheimer complex, 6 to 10 percent slopes	Yes

Map unit symbol	Map unit name	County Hydric Soil
CkC	Cid silt loam, 6 to 10 percent slopes	No
NaB	Nanford-Badin complex, 2 to 6 percent slopes	No
NaC	Nanford-Badin complex, 6 to 10 percent slopes	No
NaD	Nanford-Badin complex, 10 to 15 percent slopes	No

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

  See attached Drawing 6 and attached Preliminary Soil Map. Jurisdictional features will be avoided.

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

  No contamination is expected.

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

  No contamination is expected.

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

  Approximately 30,000-40,000 cubic yards of soil are anticipated to be moved between the locations of the cricket fields, parking areas, access road, and clubhouse restaurant.

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

  The project will not alter the pre-development stormwater runoff characteristics of the site. A Sediment and Erosion Control Plan will be provided for review and approval by Chatham County prior to beginning construction. Areas have been reserved for potential sediment basins as required.

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

  There will be no off-site impact from soil disturbance.

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

  Prime farmland soils are located on the site. Nanford-Badin complex (NaB) is identified by the USDA Soil Survey of Chatham County as prime farmland. Unique farmlands are not located on the site. See attached Farmland Classification Map.

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

  There will be approximately 0.3 acre of mapped prime farmland, currently containing wooded land will be developed with a parking area. There are no impacts to unique farmlands.

3. Land Use:

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

  See attached Drawing 2.

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

  The surrounding properties contain a mixture of land uses including undeveloped, wooded land, single-family residences, and timbered land. The project is compatible with neighboring properties as it will be used by members of the community for recreation. The facility will not produce excess noise, air or light pollution that could impact the adjacent residences. Similar forest resources as those lost to the athletic fields will remain on adjoining properties, promoting continued ecological function in the area.

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

  The current site is unzoned. The surrounding area is also unzoned.

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

  The proposed development will not alter the spirit of the surrounding land uses. Athletic fields are compatible with wooded land as they are used for similar recreational purposes, and athletic fields are compatible with residential areas as they are low impact in terms of light, noise, and air pollution.

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

  The zoning of the site is expected to change.

4. Wetlands:

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

  Streams and wetlands are located on the eastern and western potions of the site. A jurisdictional pond is located on the eastern portion of the site, and a non-jurisdictional pond is located on the central portion of the site. Stream and wetland information is based on a wetland delineation conducted by Mr. Bradley Luckey of Pilot Environmental, Inc. on November 16, 2022 and December 19, 2022. Pilot has requested verification of the delineation by the US Army Corps of Engineers.

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

  See attached Drawing 6.

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

  Wetland impacts are not proposed.

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

  - Erosion Control Permit from Chatham County
  - Stormwater Permit from Chatham County
  - Building Permit from Chatham County
  - Driveway Permit from NCDOT
  - Well and Septic Permits from Chatham County

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

  No concentrated stormwater flows will be released into streams, wetlands, or buffers.

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.**

  Parks, scenic, recreational, or state designated natural areas are not located on or adjacent to the site.

6. Areas of Archaeological or Historical Value:

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

  The NCSHPO - HPO GIS website does not identify historic properties and/or eligible for listing properties on the site or on properties within one-half mile of the site. Pilot requested comments regarding the potential for impact to historic resources from NCSHPO in a letter dated December 21, 2022. Pilot has not received a response at this time. Based on the review of the NCSHPO – HPO GIS website, Pilot does not expect the proposed development to impact historic resources.

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

  A pole barn is located on the northern portion of the site. The barn was likely constructed approximately 50 years ago. The barn contains a metal roof and two wooded side walls. The remainder of the structure is open.

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

  N/A

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

  N/A

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

  N/A

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

  Pilot requested comments regarding the potential for impact to historic resources from NCSHPO in a letter dated December 21, 2022. Pilot has not received a response at this time.

7. Air Quality:

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

  The project is anticipated to comply with the State Implementation Plans for achieving and maintaining National Ambient Air Quality Standards for criteria pollutants. Air permits from the North Carolina Division of Air Quality are not required for the construction or long-term maintenance of the athletic fields. Negligible impacts to air quality are anticipated from construction vehicle emissions and dust generated during construction activities. However, following construction activities, air emissions will not be generated during normal and long-term operation of the athletic fields.

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

  N/A

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

  Four paved parking lots will include a total of 271 parking spots. Additional parking will be available on an unpaved, gravel parking area.

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

  N/A

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

  N/A

8. Noise Levels:

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

  Current noise levels from vehicular traffic and farming exist in the area. The noise levels are typical to an agricultural/residential area.

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

  Noise levels will temporarily increase during construction activities. There will be a small increase in noise levels during the operation of the athletic fields. The athletic fields will only be open for use on the weekends. The noise levels during construction will be typical of heavy trucks and grading equipment.

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

  Noise levels are not expected to exceed fifty decibels when measured along property lines with adjoining residential use.

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

  Surrounding properties will not be significantly affected by noise levels. Negligible and temporary affects could occur at residence located on adjacent property. The nearest occupied portion of the property is approximately 200 feet from the site. The increased noise will be limited to working hours during the three months required to construct the project and are not expected to be more significant than nearby mining and railroad operations. A small increase in noise from the operation of the athletic fields is anticipated during daylight operation on the weekends.

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

  The anticipated hours of operation are from 9am until 9pm on Saturdays and Sundays.

9. Light Levels:

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

  See attached Site Plan. Five exterior lights will be located in the vicinity of the clubhouse restaurant and practice pitch. The lights will be in use during limited hours on weekends. Developed portions of adjacent properties are located approximately 800 feet and farther from the planned lighting. The lights are not expected to have an impact on adjacent residents. Because of the limited use of the lighting, it is not expected to have a negative impact 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.**

  Two ponds, two intermittent streams, and three forested wetlands are located on the site (See Drawing 6). Based on a review of the USGS topographic map, the site drains to the south toward an unnamed tributary to Indian Creek which drains to the Cape Fear River.

  Groundwater movement is expected to be from higher to lower elevations. As such, the presumed direction of groundwater flow is to the south across the site.

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

  A jurisdictional pond, wetlands, and streams are located on the eastern and western portions of the site, and a non-jurisdictional pond is located on the central portion of the site. The site drains to the south to an unnamed tributary to Indian Creek. The NCDEQ-DWR has designated Indian Creek as WS-IV waters at the location that receives site waters/drainage.

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

  See the attached Drawing 7.

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

  N/A

- **Discuss drinking water sources.**

  A water supply well will be installed in the vicinity of the clubhouse restaurant.

11. Fish and Aquatic Habitats:

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

  Two ponds, two intermittent streams, and three forested wetlands are located on the site. The surface water features provide habitat to fish and other aquatic species.

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

  There will be no impacts to fish, aquatic life, or their habitats.

12. Wildlife and Natural Vegetation:

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

  See attached Drawing 2. The site contains wooded land and fields. Similar forest communities are located to the south and east of the site.

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

  The wooded land consists of an approximate 30-year-old mixed hardwood stand. The understory is sparse. Dominant species include winged elm, sweetgum, loblolly pine, and American hornbeam. Near the streams and wetlands, the wooded areas contain moderately dense mid and under-story vegetation consisting of native and invasive species. Broom-sedge, Chinese privet, Japanese honeysuckle, microstegium, golden-rod, ragweed, blackberry, rush species, netted chain-fern and other low-lying species were observed in the mid and understories.

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

  Pilot reviewed the IPaC Official Species List for the site (attached). Tricolored bat (Perimyotis subflavus), Red-cockaded woodpecker (Picoides borealis), Cape Fear shiner (Notropis mekistocholas), and harperella (Ptilimnium nodosum) are identified as proposed endangered and endangered species that may occur on the site. Pilot conducted a site visit and evaluated the potential for the presence of threatened and endangered species or their habitat on the site. Based on our evaluation, potential habitat for the species identified above was not observed on the site.

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

  Adjoining properties to the south and east contain forested land similar to that on the site and sufficient to support wildlife that could be displaced from the site. Additional nearby forested land suitable for supporting displaced wildlife is abundant in the area.

- **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.**

  Chinese privet, Japanese honeysuckle and microstegium are located on the site.

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

  The site will be timbered using a track mounted feller-buncher and rubber-tired skidders. A bulldozer and dump trucks will be used to grub or remove the stumps. Buffers will be marked clearly in the field to establish the cutting limits including the vegetative buffer to be left adjacent to the streams, wetlands, and ponds.

13. Hazardous Materials:

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

  There will be no hazardous materials stored or introduced on site.

- **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.**

  There will be no hazardous materials stored or introduced on site.

Topographic Map:

A topographic map with contours at vertical intervals of not more than five (5) feet, at the same scale as the First Plat, for all major subdivisions unless not deemed necessary by staff. Staff may require a topographic map for other subdivisions if necessary for adequate review. The date and method of preparing the topographic survey shall be stated.

See attached Site Plan. Additional drawings can be provided upon request.

Soils Evaluation:

A soils evaluation shall be performed by a certified/licensed soil scientist or persons approved by the Health Department to perform such evaluations or investigations. Such evaluations shall be performed unless a central sewage disposal system is proposed. A soils map showing the location of suitable soils and a letter of explanation shall be submitted to perform such evaluations or investigations.

See attached Preliminary Soil Map.

Utility Plans:

Plans of proposed utility layouts for sewer and water where applicable, showing feasible connections to the existing utility system, or any proposed utility system.

See attached Site Plan.

U.S. Army Corps of Engineers and Division of Water Quality Permits or Certifications:

Indicate if US Army Corps of Engineers and/or NC Division of Water Quality permits or certifications will be required. These permits and/or certifications may be required when development improvements may involve the placement of excavated material or fill material into streams, creeks, lakes, or wetlands. If any of these permits or certifications will be required, copies of the approved permits shall be submitted at time of Construction Plan submittal.

No USACE permits are required for this project.

Exhibits and Attachments

Drawings

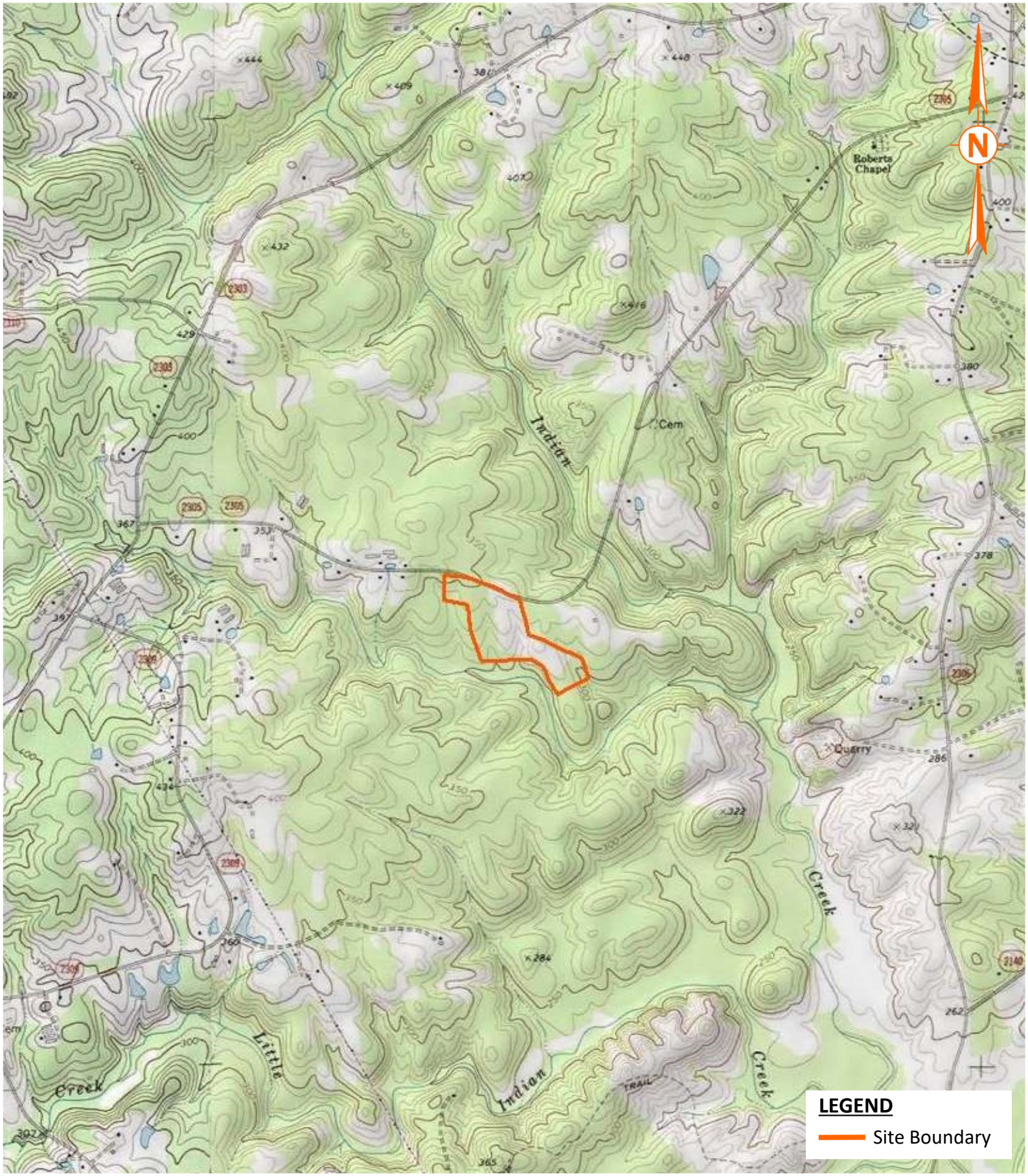
Drawing 1	USGS Topographic Map
Drawing 2	2017 Aerial Photograph
Drawing 3	Contour Map
Drawing 4	FEMA FIRM
Drawing 5	Web Soil Map
Drawing 5A	Published Soil Map
Drawing 6	Wetland Map
Drawing 7	River Basin Map

Proposed Site Plan (Sheet C-3), September 2022

Preliminary Soil Map, Kerry Joe Johnson

IPaC Resources Trust Report, dated December 20, 2022

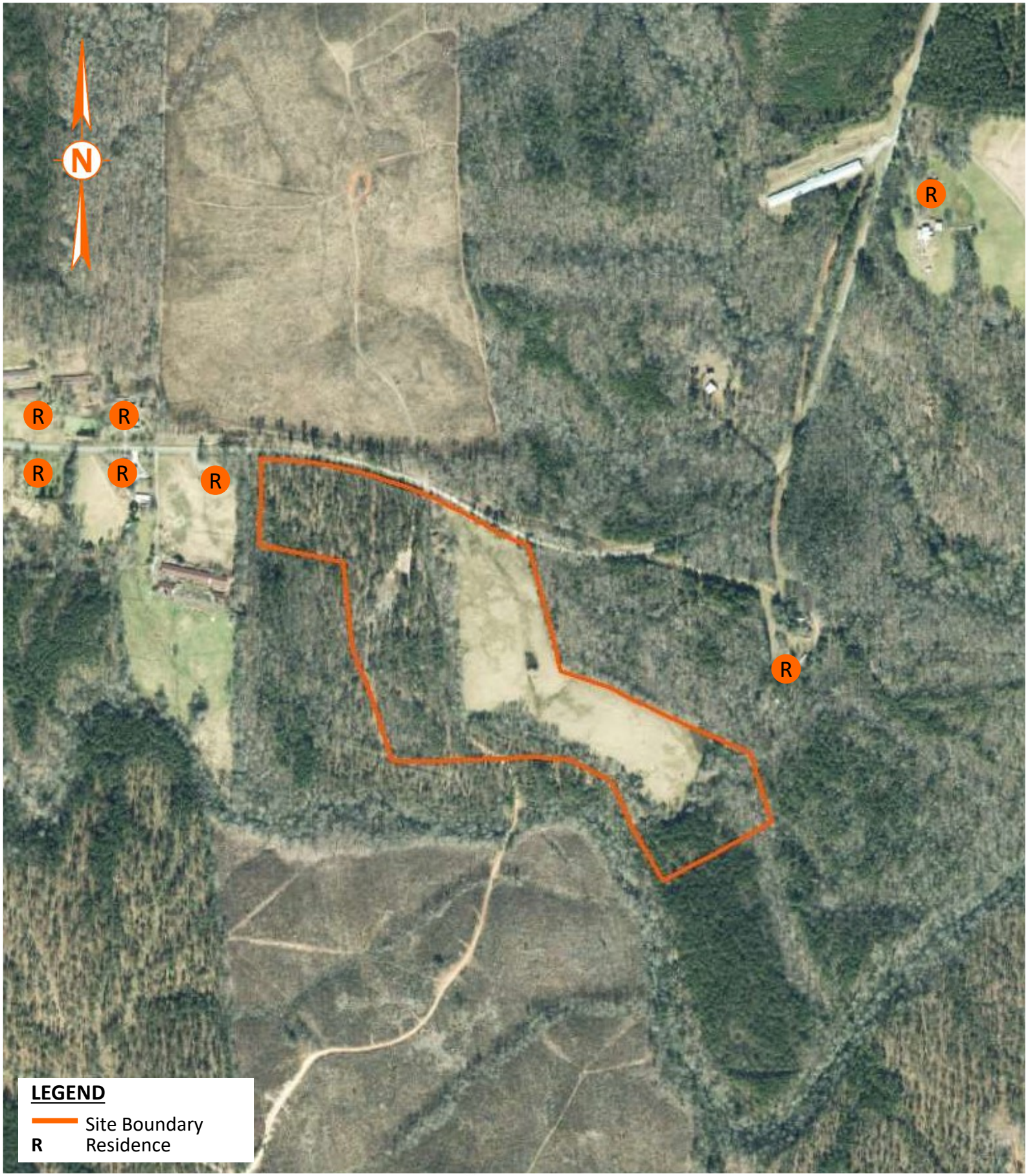
Pilot, State Historic Preservation Office Inquiry, dated December 21, 2022, submitted to NCSHPO



Drawing 1
USGS Topographic Map
Goldston, NC Quadrangles
Scale: 1" = 2,000'

PILOT
PILOT ENVIRONMENTAL, INC

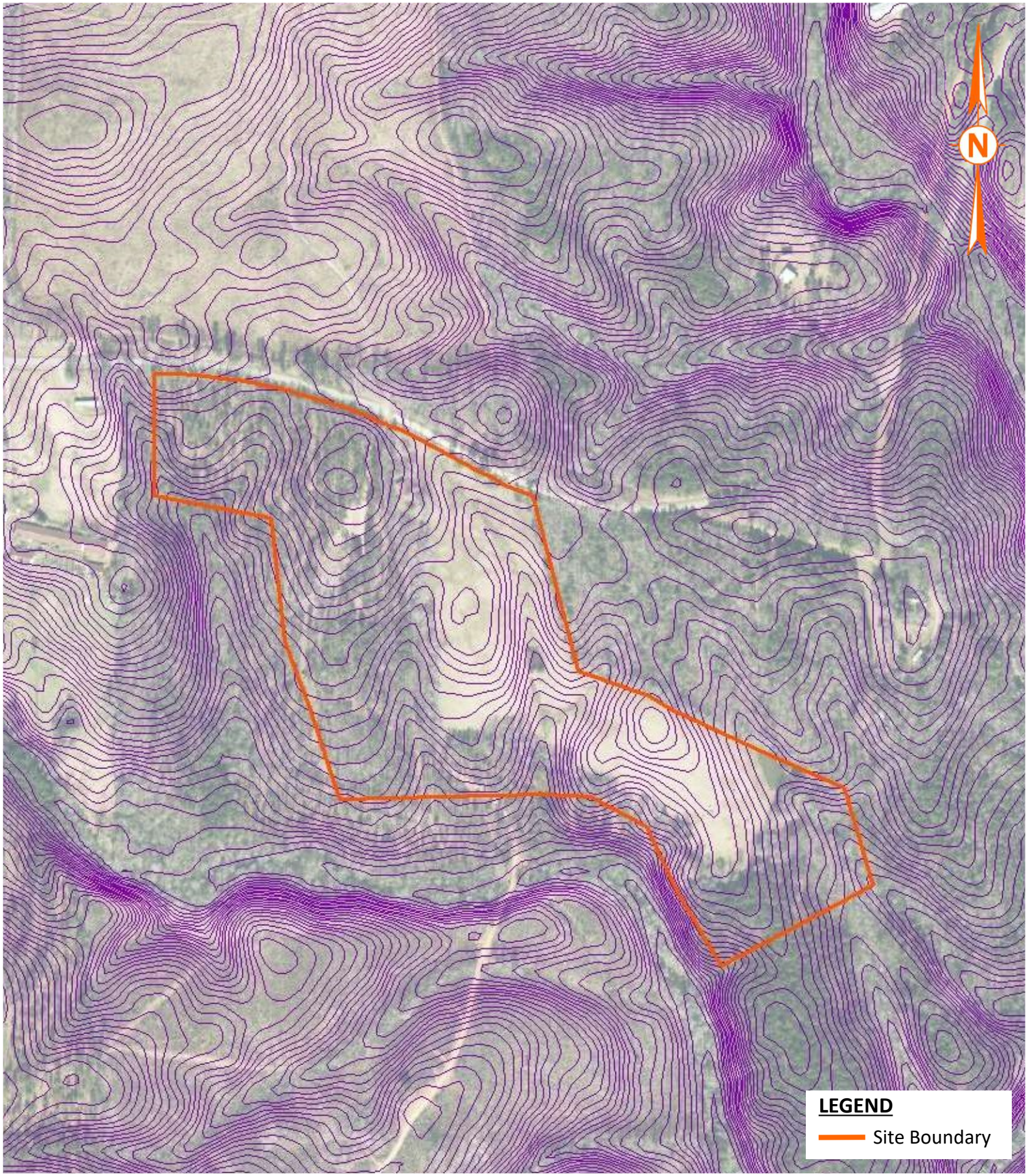
USGS Topographic Map
Approximate 37.3-Acre Tract
Kiran Athletic Fields
Goldston, Chatham County, NC
Pilot Project 8770.1



Drawing 2
Google Earth
Interactive Mapping Program
Scale: 1” = 600’

PILOT
PILOT ENVIRONMENTAL, INC

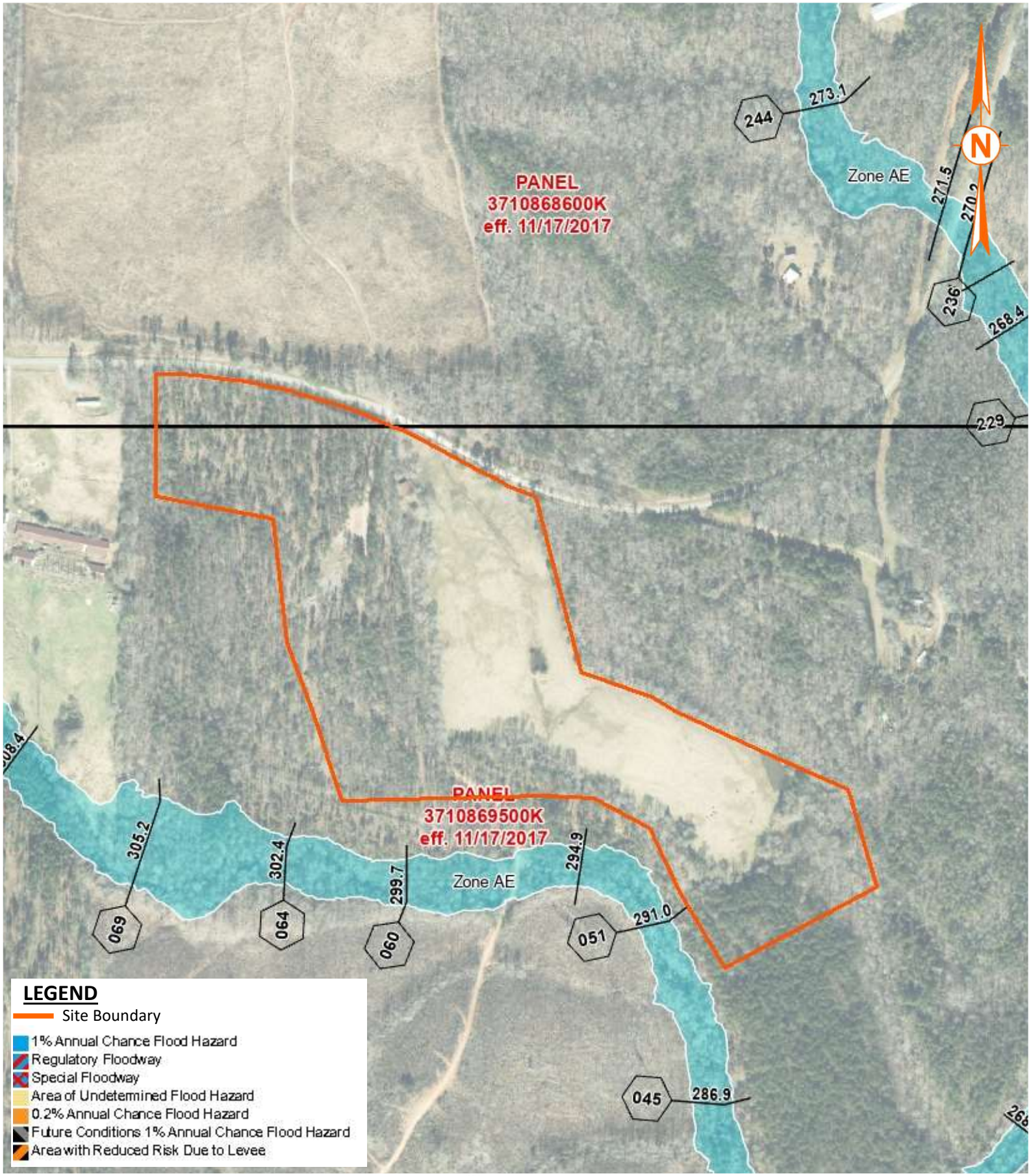
2018 Aerial Photograph
Approximate 37.3-Acre Tract
Kiran Athletic Fields
Goldston, Chatham County, NC
Pilot Project 8770.1



Drawing 3
Aerial Imagery from Esri
2 Ft Lidar from NC Onemap
Scale: 1” = 400’

PILOT
PILOT ENVIRONMENTAL, INC

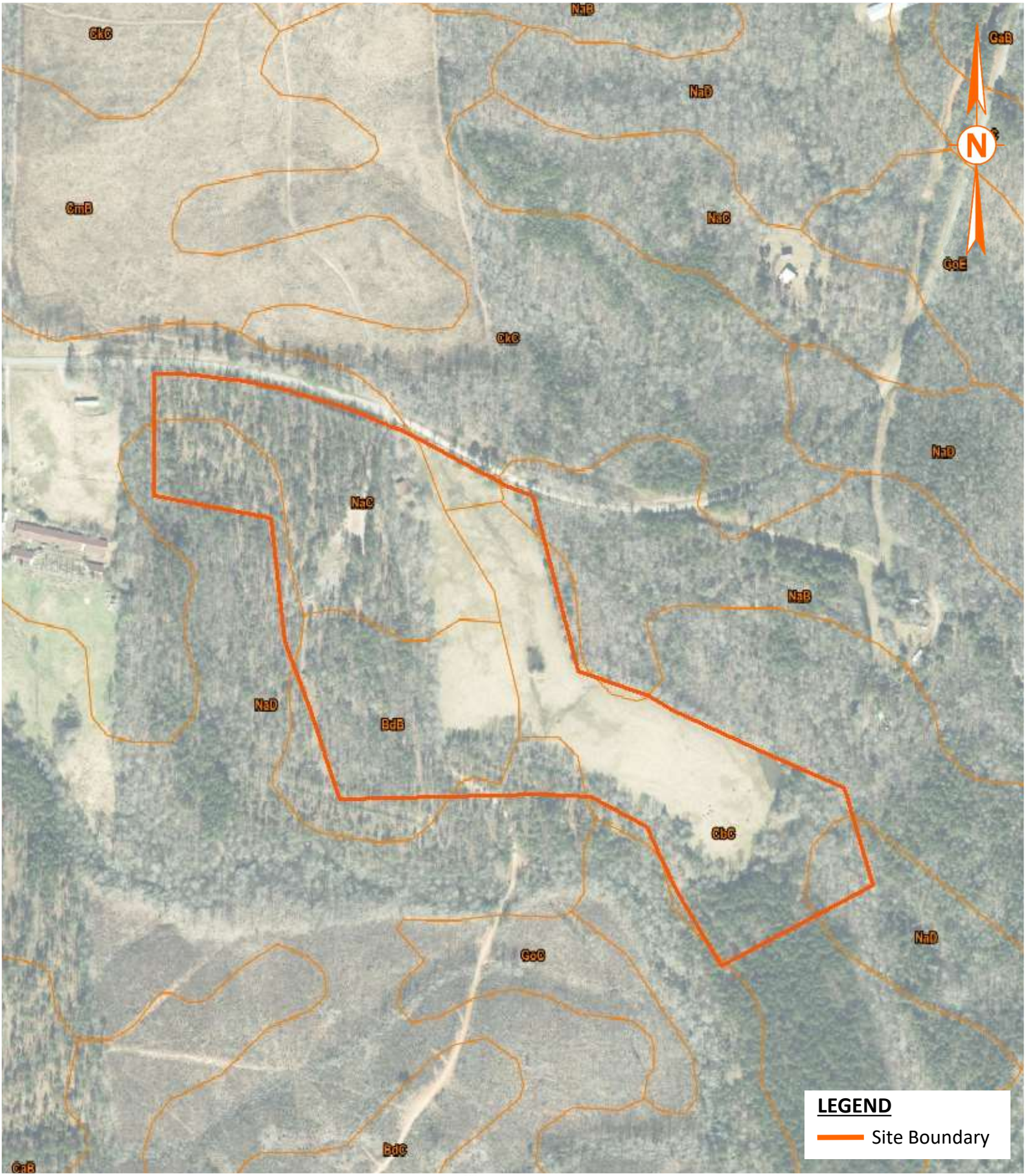
Contour Map
Approximate 37.3-Acre Tract
Kiran Athletic Fields
Goldston, Chatham County, NC
Pilot Project 8770.1



Drawing 4
FEMA FIRM Panels
3710869500K, and 3710868600K,
Effective 11.17.17
Scale: 1” = 400’

PILOT
PILOT ENVIRONMENTAL, INC

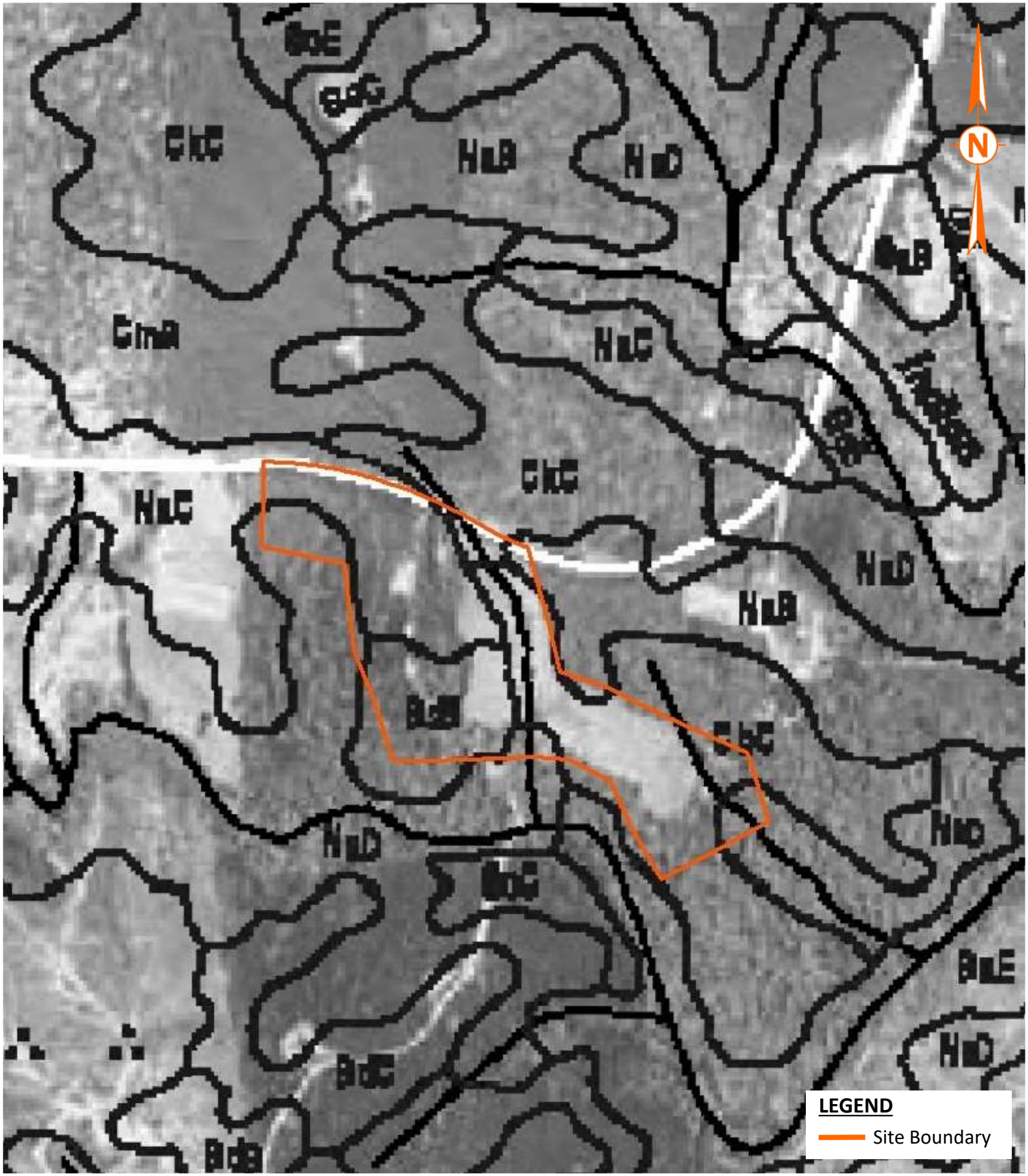
FEMA FIRM
Approximate 37.3-Acre Tract
Kiran Athletic Fields
Goldston, Chatham County, NC
Pilot Project 8770.1



Drawing 5
USDA Web Soil Survey
of Chatham County, NC
Scale: 1” = 400’

PILOT
PILOT ENVIRONMENTAL, INC

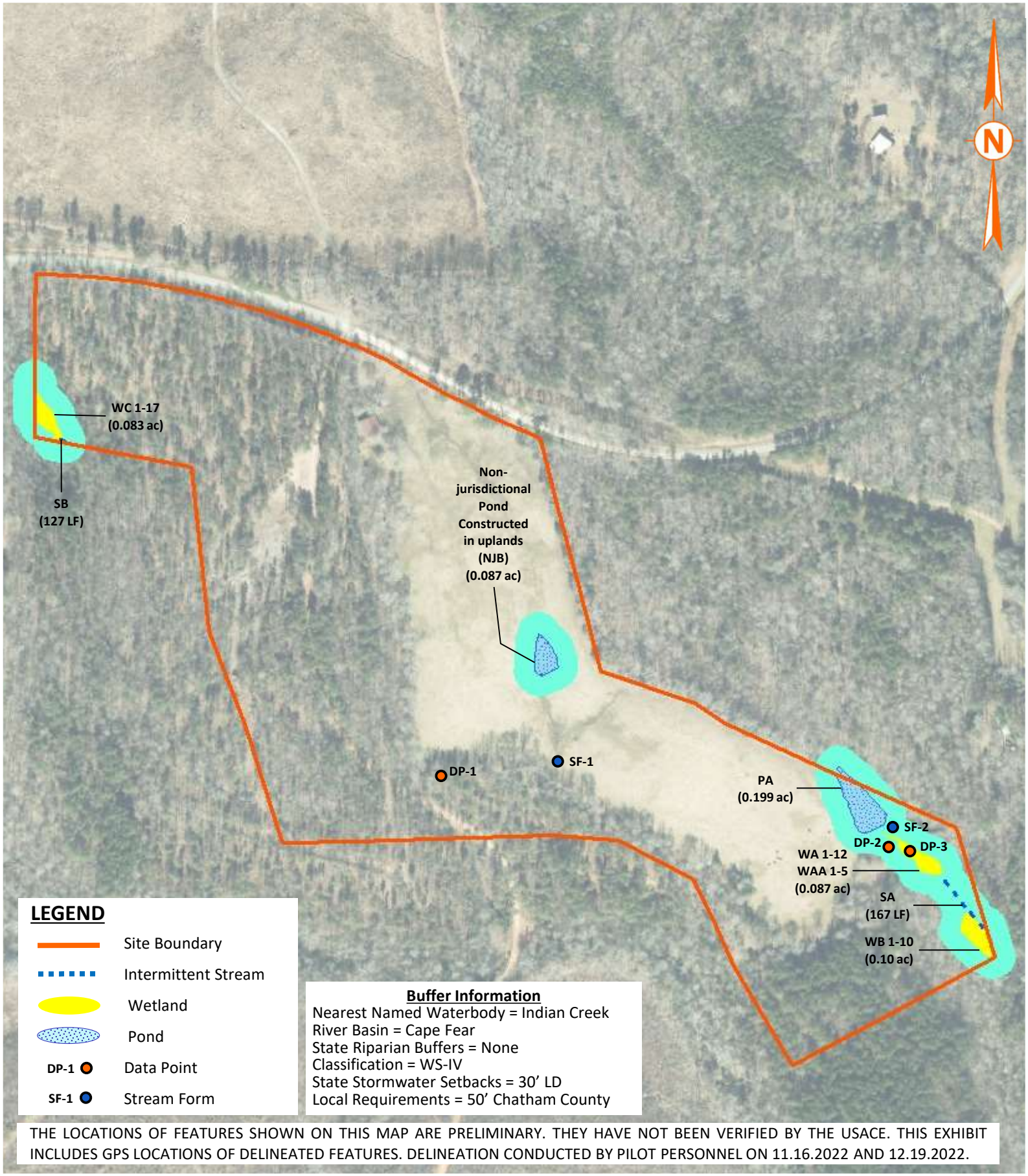
Web Soil Map
Approximate 37.3-Acre Tract
Kiran Athletic Fields
Goldston, Chatham County, NC
Pilot Project 8770.1



Drawing 5A
USDA Soil Survey
of Chatham County, NC
Published 2006
Not to Scale

PILOT
PILOT ENVIRONMENTAL, INC

Published Soil Map
Approximate 37.3-Acre Tract
Kiran Athletic Fields
Goldston, Chatham County, NC
Pilot Project 8770.1



LEGEND

- Site Boundary
- Intermittent Stream
- Wetland
- Pond
- DP-1 Data Point
- SF-1 Stream Form

Buffer Information

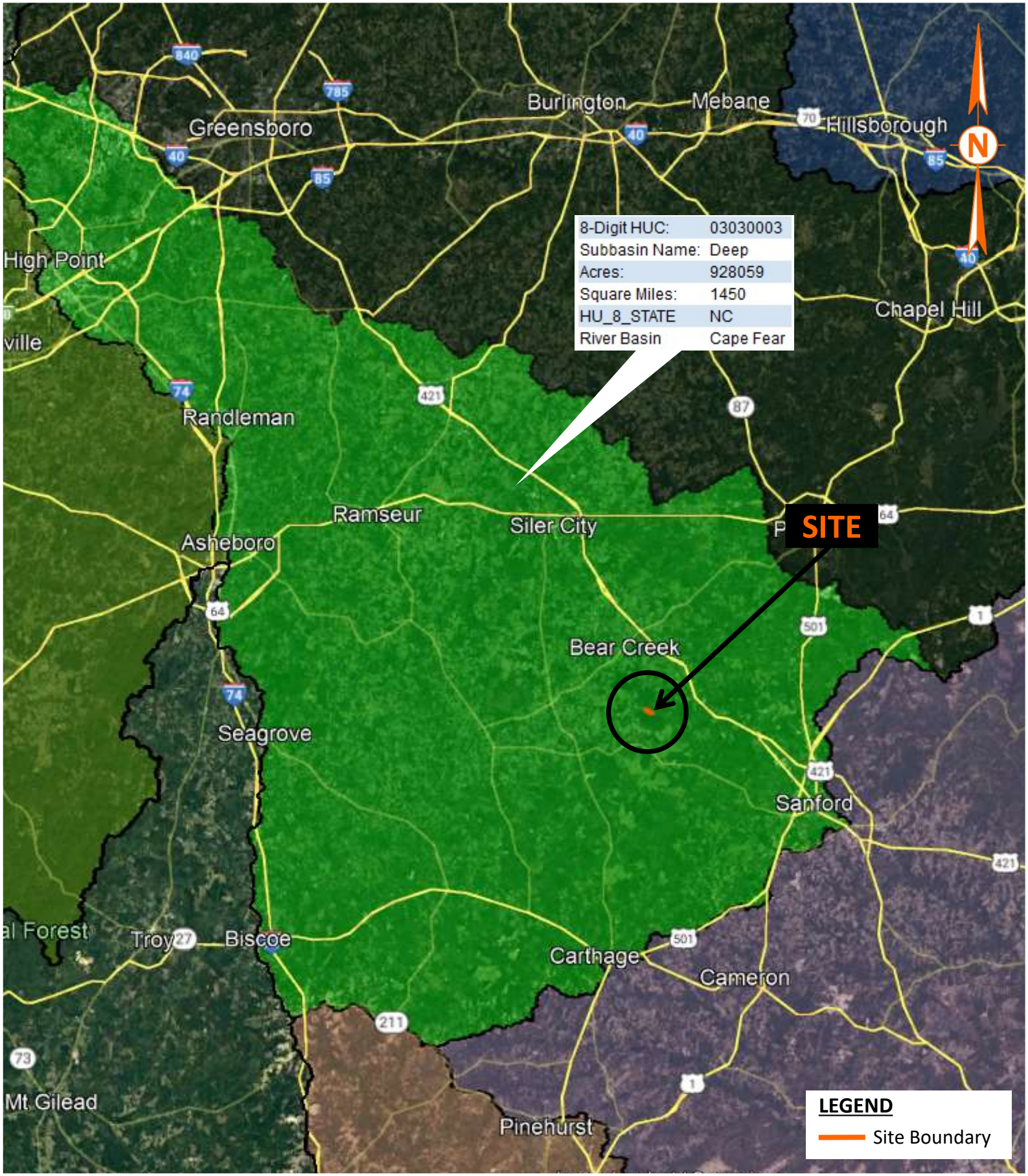
Nearest Named Waterbody = Indian Creek
River Basin = Cape Fear
State Riparian Buffers = None
Classification = WS-IV
State Stormwater Setbacks = 30' LD
Local Requirements = 50' Chatham County

THE LOCATIONS OF FEATURES SHOWN ON THIS MAP ARE PRELIMINARY. THEY HAVE NOT BEEN VERIFIED BY THE USACE. THIS EXHIBIT INCLUDES GPS LOCATIONS OF DELINEATED FEATURES. DELINEATION CONDUCTED BY PILOT PERSONNEL ON 11.16.2022 AND 12.19.2022.

Drawing 6
2019 Satellite Imagery from ESRI and Pilot GPS Data
Scale: 1" = 300'
Date: 12.20.22

PILOT ENVIRONMENTAL, INC

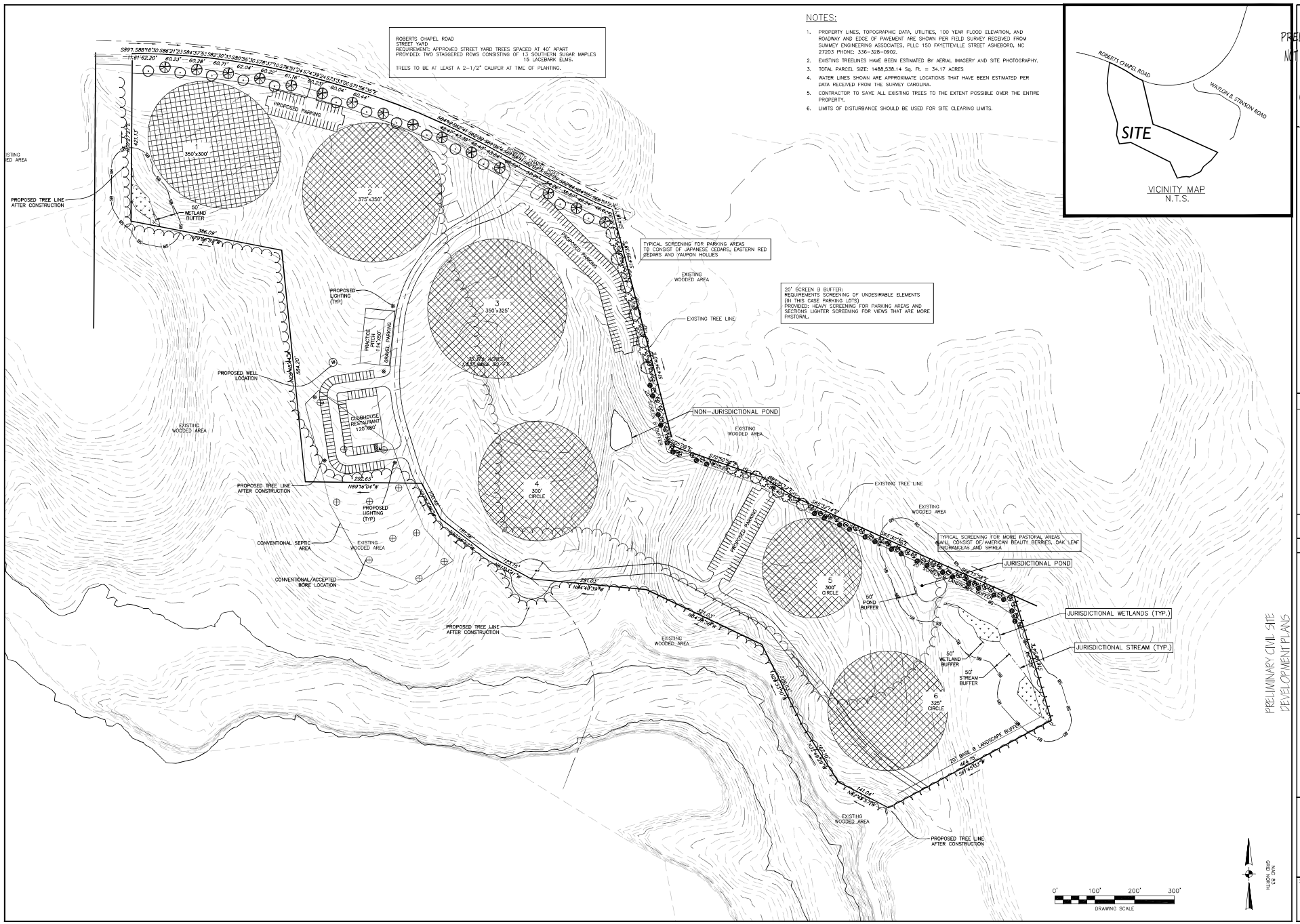
Wetland Map
Roberts Chapel Church Road
Approximate 37.3-Acre Tract
Goldston, Chatham County, NC
Pilot Project 8770.1



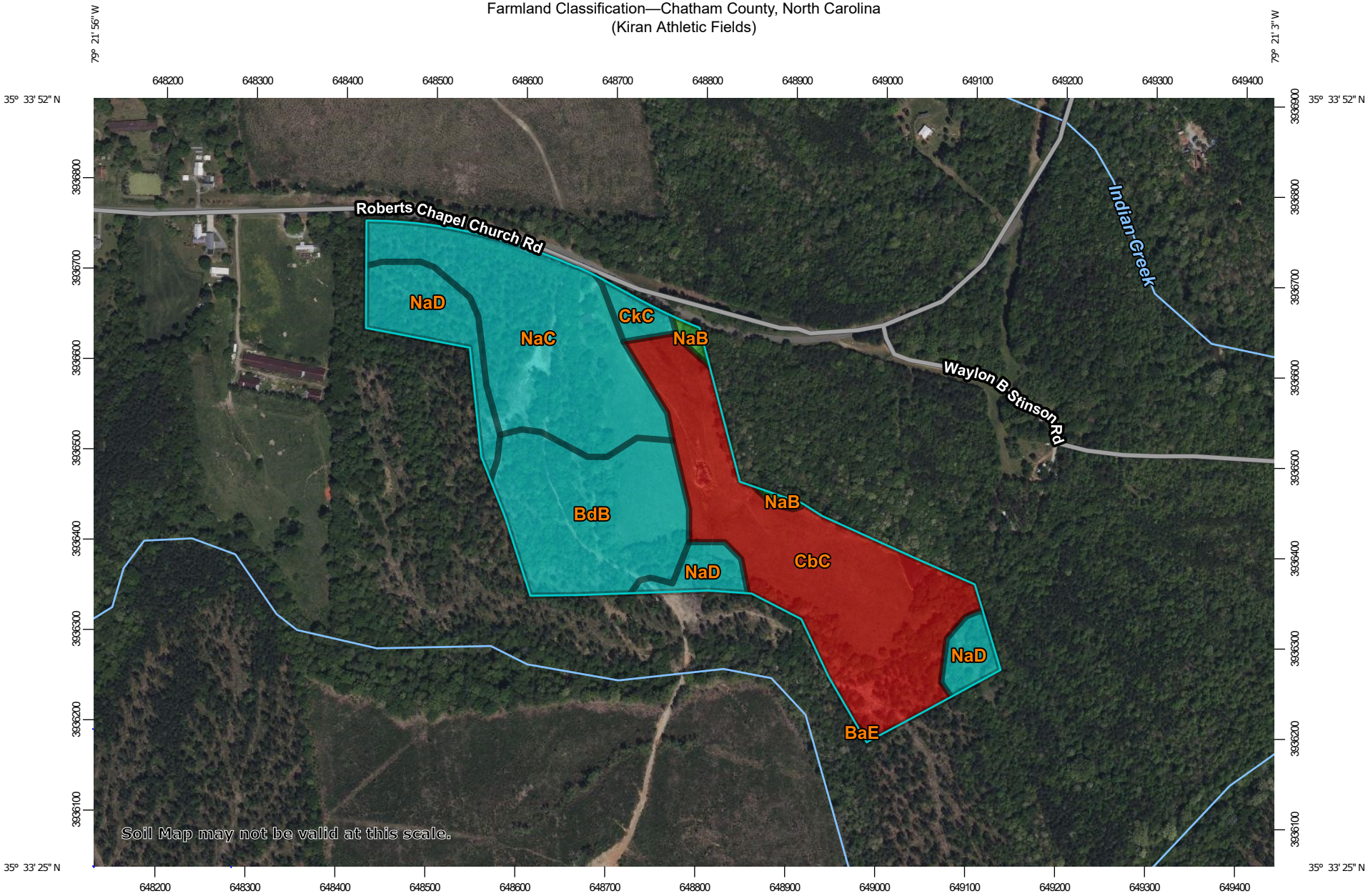
Drawing 7
River Basins from NC OneMap
Not to Scale

PILOT ENVIRONMENTAL, INC

River Basin Map
Approximate 37.3-Acre Tract
Kiran Athletic Fields
Goldston, Chatham County, NC
Pilot Project 8770.1


ROBERTS CHAPEL ROAD
STREET YARD
REQUIREMENT: APPROVED STREET YARD TREES SPACED AT 40' APART
PROVIDED: TWO STAGGERED ROWS CONSISTING OF 13 SOUTHERN SUGAR MAPLES
15 LACEBARK ELMS.
TREES TO BE AT LEAST A 2-1/2" CALIPER AT TIME OF PLANTING.
NOTES:
1. PROPERTY LINES, TOPOGRAPHIC DATA, UTILITIES, 100 YEAR FLOOD ELEVATION, AND ROADWAY AND EDGE OF PAVEMENT ARE SHOWN PER FIELD SURVEY RECEIVED FROM SUMMEY ENGINEERING ASSOCIATES, PLLC 150 FAYETTEVILLE STREET ASHEBORO, NC 27203 PHONE: 336-328-0902.
2. EXISTING TREELINES HAVE BEEN ESTIMATED BY AERIAL IMAGERY AND SITE PHOTOGRAPHY.
3. TOTAL PARCEL SIZE: 1488,538.14 Sq. Ft. = 34.17 ACRES
4. WATER LINES SHOWN ARE APPROXIMATE LOCATIONS THAT HAVE BEEN ESTIMATED PER DATA RECEIVED FROM THE SURVEY CAROLINA.
5. CONTRACTOR TO SAVE ALL EXISTING TREES TO THE EXTENT POSSIBLE OVER THE ENTIRE PROPERTY.
6. LIMITS OF DISTURBANCE SHOULD BE USED FOR SITE CLEARING LIMITS.
ROBERTS CHAPEL ROAD
WAYLON B. STINSON ROAD
SITE
VICINITY MAP
N.T.S.
PROPOSED PARKING
PROPOSED TREE LINE AFTER CONSTRUCTION
50' WETLAND BUFFER
PROPOSED LIGHTING (TYP.)
TYPICAL SCREENING FOR PARKING AREAS TO CONSIST OF JAPANESE CEDARS, EASTERN RED CEDARS AND YAUPON HOLLIES
EXISTING WOODED AREA
EXISTING TREE LINE
20' SCREEN B BUFFER: REQUIREMENTS SCREENING OF UNDESIRABLE ELEMENTS (IN THIS CASE PARKING LOTS) PROVIDED: HEAVY SCREENING FOR PARKING AREAS AND SECTIONS LIGHTER SCREENING FOR VIEWS THAT ARE MORE PASTORAL.
PROPOSED WELL LOCATION
PRACTICE PUTTING 114'x105'
GRAVEL PARKING
CLUBHOUSE RESTAURANT 120'x80'
NON-JURISDICTIONAL POND
CONVENTIONAL SEPTIC AREA
CONVENTIONAL/ACCEPTED BORE LOCATION
TYPICAL SCREENING FOR MORE PASTORAL AREAS SHALL CONSIST OF AMERICAN BEAUTY BERRIES, OAK LEAF HYDRANGEAS AND SPIREA
JURISDICTIONAL POND
JURISDICTIONAL WETLANDS (TYP.)
JURISDICTIONAL STREAM (TYP.)
50' POND BUFFER
50' WETLAND BUFFER
50' STREAM BUFFER
20' BASE B LANDSCAPE BUFFER
1 350'x300'
2 375'x350'
3 350'x325'
4 300' CIRCLE
5 300' CIRCLE
6 325' CIRCLE
0' 100' 200' 300'
DRAWING SCALE
PRELIMINARY CIVIL SITE DEVELOPMENT PLANS
PRELIMINARY PLANS NOT FOR CONSTRUCTION
SEAL
SEA
Summey Engineering Associates, PLLC
Engineering - Consulting - Surveying
PO Box 968
Asheboro, NC 27204
Phone: 336-328-0902 Fax: 336-328-0922
Email - info@summeyengineering.com
NC Professional Engineering Firm License No. P-0176
No. Date: Description: By:
PROPOSED SITE PLAN
KIRAN ATHLETIC FIELDS
ROBERTS CHAPEL ROAD
CHATHAM COUNTY - GOLDSTON - NORTH CAROLINA
Scale: AS NOTED
Date: SEPTEMBER, 2022
Drawn By: PJC
Checked By: HMSJ
Job No. E-6171
Sheet No. C-3

Farmland Classification—Chatham County, North Carolina
(Kiran Athletic Fields)



Map Scale: 1:6,000 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated

- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Chatham County, North Carolina
Survey Area Data: Version 26, Sep 8, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 23, 2022—Apr 27, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaE	Badin-Nanford complex, 15 to 30 percent slopes	Not prime farmland	0.0	0.0%
BdB	Badin-Tarrus complex, 2 to 8 percent slopes	Farmland of statewide importance	8.0	21.4%
CbC	Callison-Misenheimer complex, 6 to 10 percent slopes	Not prime farmland	13.3	35.5%
CkC	Cid silt loam, 6 to 10 percent slopes	Farmland of statewide importance	0.7	1.9%
NaB	Nanford-Badin complex, 2 to 6 percent slopes	All areas are prime farmland	0.3	0.9%
NaC	Nanford-Badin complex, 6 to 10 percent slopes	Farmland of statewide importance	10.1	27.1%
NaD	Nanford-Badin complex, 10 to 15 percent slopes	Farmland of statewide importance	4.9	13.2%
Totals for Area of Interest			**37.3**	**100.0%**

Description

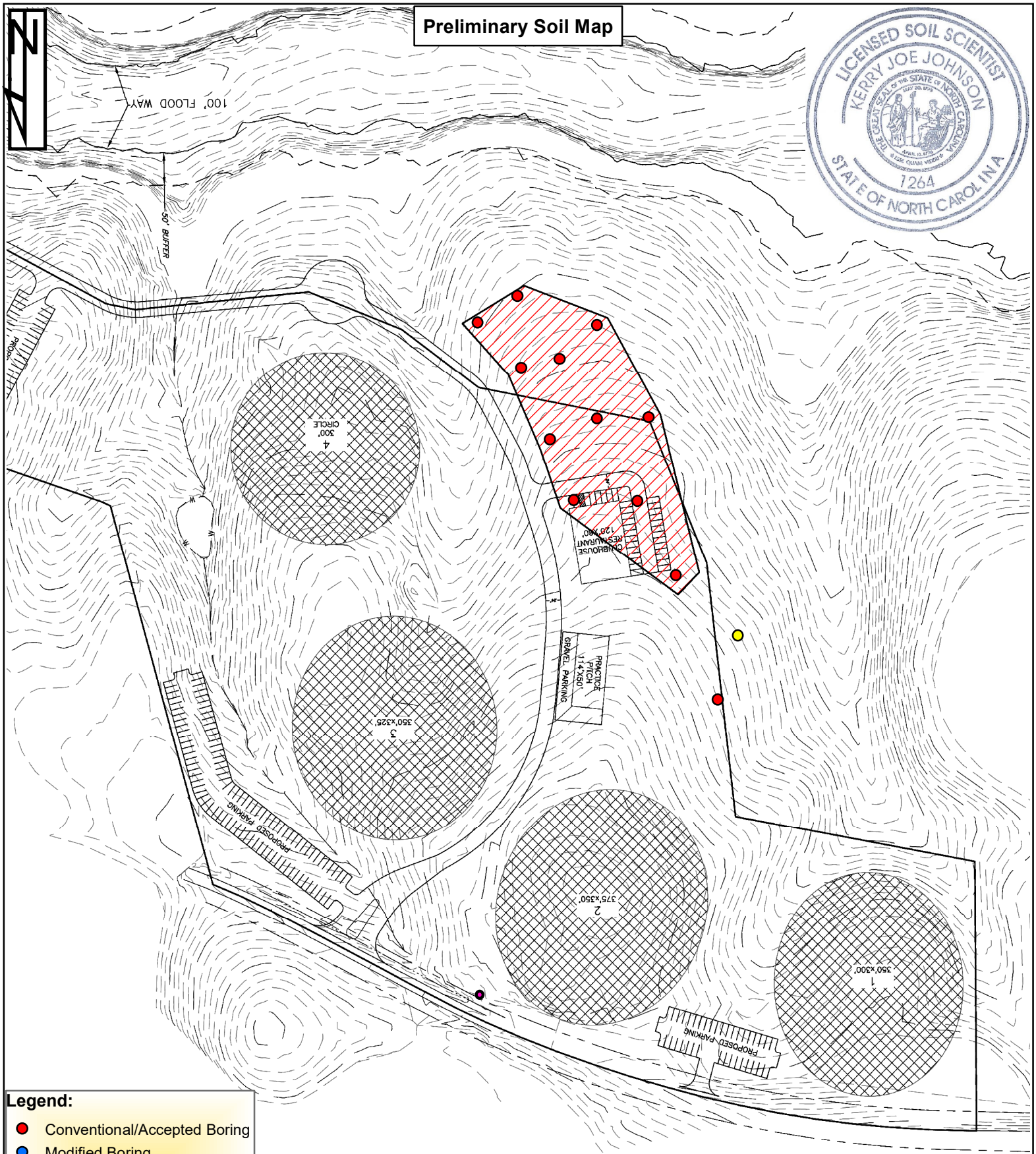
Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Preliminary Soil Map



LICENSED SOIL SCIENTIST
KERRY JOE JOHNSON
1264
STATE OF NORTH CAROLINA

Legend:

- Conventional/Accepted Boring
- Modified Boring
- Alternative Boring
- Unsuitable Boring
- Conventional System Soil Area
- Modified System Soil Area
- Alternative System Soil Area

1 inch = 200 feet

Base Map: Summey Engineering, PLLC

Goldston Athletic Complex Project
Roberts Chapel Rd. Goldston, NC
Chatham County

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Ecological Services Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Phone: (919) 856-4520 Fax: (919) 856-4556

In Reply Refer To:
Project Code: 2023-0026975
Project Name: Kiran Athletic Fields

December 20, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). If your project area contains suitable habitat for any of the federally-listed species on this species list, the proposed action has the potential to adversely affect those species. If suitable habitat is present, surveys should be conducted to determine the species' presence or absence within the project area. The use of this species list and/or North Carolina Natural Heritage program data should not be substituted for actual field surveys.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Migratory Birds

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

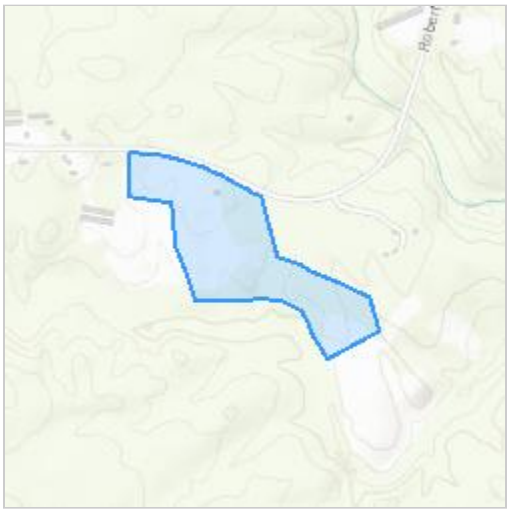
This species list is provided by:

Raleigh Ecological Services Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
(919) 856-4520

Project Summary

Project Code: 2023-0026975
Project Name: Kiran Athletic Fields
Project Type: New Constr - Above Ground
Project Description: Cricket fields
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@35.56077895,-79.35918038806237,14z



Counties: Chatham County, North Carolina

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Birds

NAME	STATUS
Red-cockaded Woodpecker *Picoides borealis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered

Fishes

NAME	STATUS
Cape Fear Shiner *Notropis mekistocholas* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6063	Endangered

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Harperella *Ptilimnium nodosum*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/3739

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Prairie Warbler *Dendroica discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31

NAME	BREEDING SEASON
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

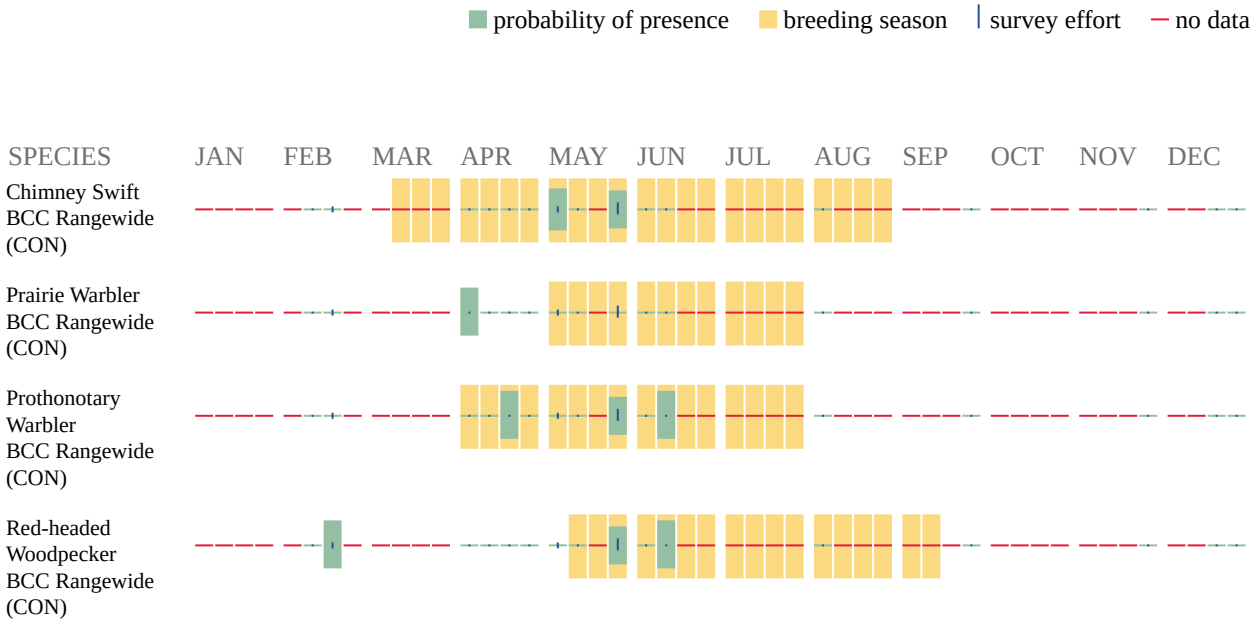
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.
Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits

may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?
The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);

2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities,

should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

IPaC User Contact Information

Agency: Pilot Environmental, Inc.
Name: Kylie Walker
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City: Kernersville
State: NC
Zip: 27284
Email kwalker@pilotenviro.com
Phone: 3365797577

PILOT ENVIRONMENTAL, INC

December 21, 2022

Ms. Renee Gledhill-Earley
State Historic Preservation Office
4617 Mail Service Center
Raleigh, North Carolina 27699-4617

Reference: State Historic Preservation Office Inquiry
Approximate 37.3-Acre Tract
Kiran Athletic Fields
Goldston, Chatham County, North Carolina
Pilot Project 8770.1

Dear Ms. Gledhill-Earley:

Pilot Environmental, Inc. (Pilot) is requesting information concerning the possible presence of historic and archeological resources at the approximate 37.3-acre tract located south of Roberts Chapel Church Road in Goldston, Chatham County, North Carolina. The site is being evaluated for proposed development with six athletic cricket fields, a clubhouse restaurant, and associated parking.

The site contains pasture and wooded land. An agricultural structure is located on the northern portion of the site. The site is depicted on the attached USGS Topographic Map and aerial photograph (Wetland Map). Pilot also reviewed the NCSHPO – Historic Properties Office (HPO) GIS website and included the map as an attachment.

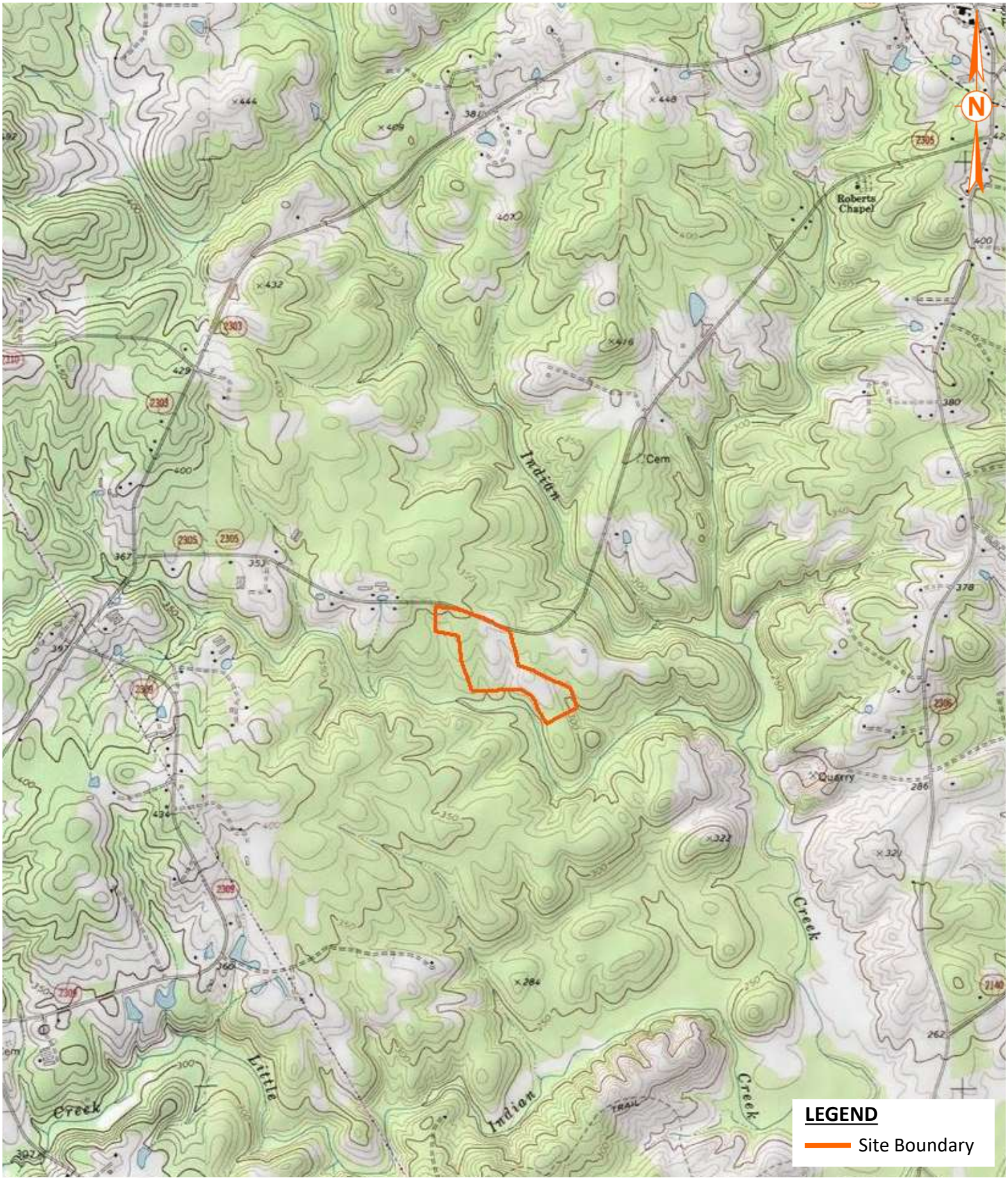
We appreciate your assistance. Please contact us at 336-310-4527 if you have any questions concerning the site or this request.

Sincerely,

Kylie A. Walker

Kylie A. Walker
Project Manager

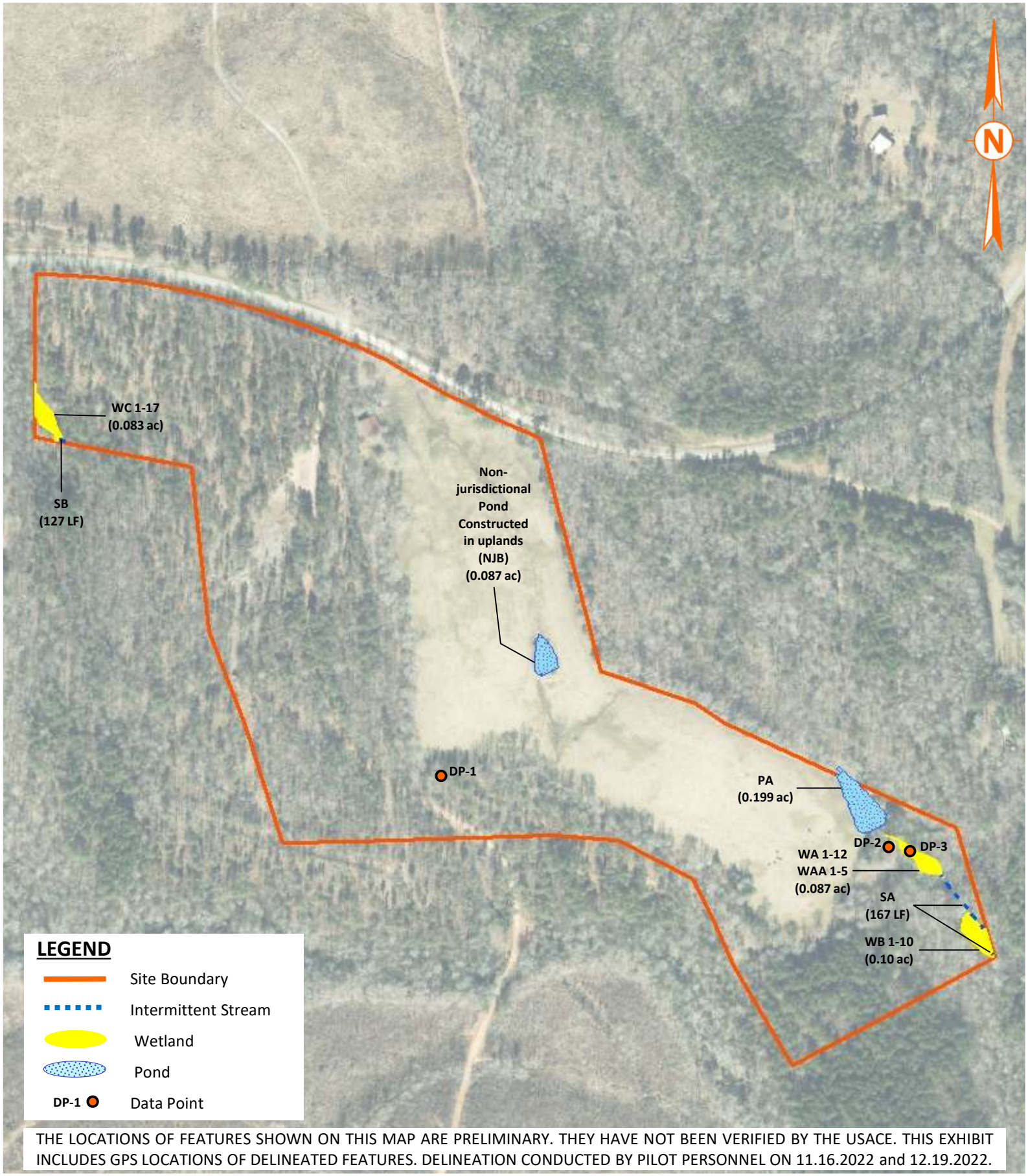
Attachments: Drawing 1 – USGS Topographic Map
Drawing 2 – Wetland Map
Drawing 3 – NCSHPO – HPO GIS Map



Drawing 1
USGS Topographic Map
Goldston,
NC Quadrangle
Scale: 1" = 2,000'

PILOT
PILOT ENVIRONMENTAL, INC

USGS Topographic Map
Approximate 37.3-Acre Tract
Kiran Athletic Fields
Goldston, Chatham County, NC
Pilot Project 8770.1

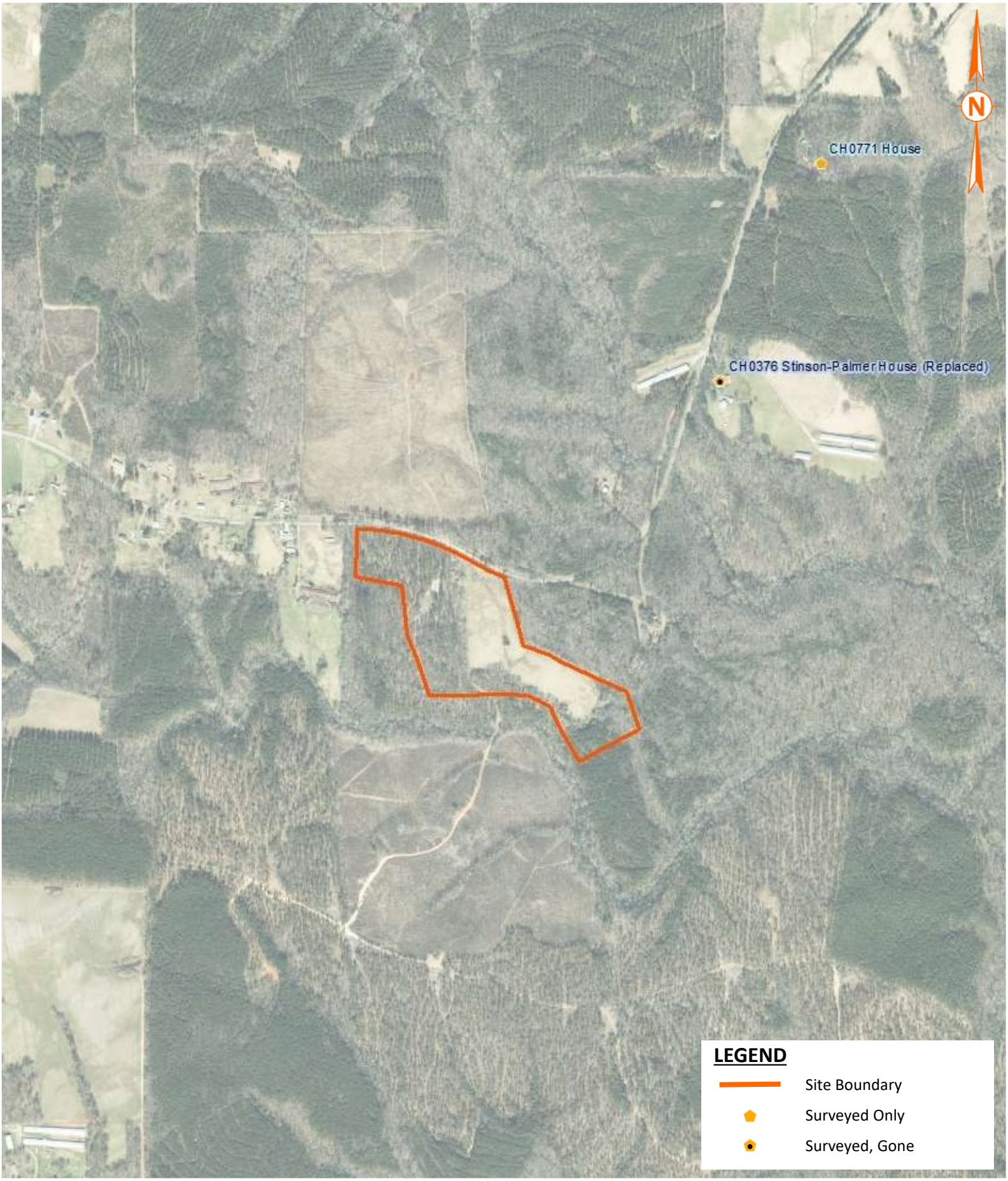


THE LOCATIONS OF FEATURES SHOWN ON THIS MAP ARE PRELIMINARY. THEY HAVE NOT BEEN VERIFIED BY THE USACE. THIS EXHIBIT INCLUDES GPS LOCATIONS OF DELINEATED FEATURES. DELINEATION CONDUCTED BY PILOT PERSONNEL ON 11.16.2022 and 12.19.2022.

Drawing 2
2019 Satellite Imagery from ESRI and Pilot GPS Data
Scale: 1" = 300'
Date: 12.20.22

PILOT ENVIRONMENTAL, INC

Wetland Map
Roberts Chapel Church Road
Approximate 37.3-Acre Tract
Goldston, Chatham County, NC
Pilot Project 8770.1



Drawing 3
NCSHPO – HPO GIS Map
Satellite Imagery from Esri
Scale: 1” = 1,000'

PILOT
PILOT ENVIRONMENTAL, INC

NCSHPO – HPO GIS Map
Approximate 37.3-Acre Tract
Kiran Athletic Fields
Goldston, Chatham County, NC
Pilot Project 8770.1